

Test & Measurement



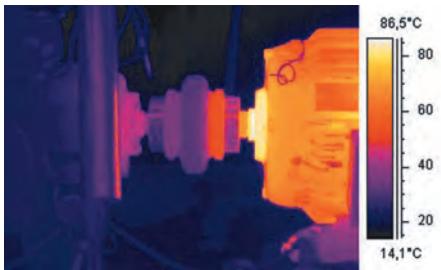
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Test & Measurement

Test Equipment

Thermal Imaging

Benefits of Thermography



Infrared radiation (IR) is emitted by every object above a temperature of -273°C. The human eye cannot detect infrared radiation, but an infrared camera can. It can take pictures of objects to show the amount of heat they are emitting. Such pictures consist of a map of colours that show surface temperatures of the object. An infrared camera is an invaluable diagnostic tool in a variety of industries, as it can detect abnormally hot or cold areas or components. Thermography is a powerful maintenance tool, as in many instances equipment failure is preceded by a period of increasing heat. An infrared camera is also an excellent building inspection instrument, it quickly scans and identifies problem areas that can't be seen by the naked eye.

It is also used for repair verification and insurance purposes. They allow you to accurately measure the temperature and take an image of any object you are looking at in a non-contact mode, without putting you or staff in danger.

FLIR Systems are the global leader in infrared camera technology and their latest models - E4, E6 and E8 - offer temperature measurement together with an MSX-enhanced IR image and a visual image. They are light-weight, compact and rugged. The new user-friendly interface makes it easy to start using the camera without previous knowledge or camera training

The ideal tool for condition monitoring to assist in locating problems fast, indoor or outdoor instantly identify previously 'invisible' potential problems in mechanical, electrical and many building applications.

Applications

Electric Motors
Bearings (Plummer Blocks and Self Lube)
Gearboxes
Idler bearings on conveyors
Conveyor belts
Pulleys
Pumps and piping
Steam traps
Oil coolers
Tank liquid levels
Insulation integrity
Refractory integrity
Circuit breakers
Busbars
Switchgear
Fuses
Relay panels

Flir iX Series Thermal Imaging Camera's



FLIR i3 / i5 / i7 is the smallest, lightest and most affordable thermal imaging camera on the market. It is incredibly easy to use and requires no former experience. It really is a matter of "point-shoot-detect" to obtain high-quality thermal images that will immediately give you the thermal information you need.

- Outstanding ease-of-use
The camera is extremely easy to understand and operate, designed for entry-level users. The camera is intuitive and comes with a full manual.
- Fully automatic
Produces instant, point-and-shoot JPEG thermal imagery that carries all required temperature data and can be stored internally or externally, sent and analyzed.
- Focus free
The fixed focus free lens makes using the FLIR i5/i7 a snap
- Compact and lightweight
FLIR i3/i5/i7 weighs only 365 g, and is easy to store in a belt pouch.
- Extremely rugged
FLIR i-Series thermal imaging cameras withstand a 2 meter drop. They are watersplash proof and IP43 rated.
- SD card storage
Stores images with unique ID in radiometric JPEG format, containing all temperature data on a standard miniSD card. USB file transfer to PC.
- Reporting and analysis software included
FLIR Tools software is included and the camera is also compatible with the more powerful FLIR Reporter.
- Outstanding measurement/accuracy
High accuracy of $\pm 2^\circ\text{C}$ or $\pm 2\%$ produces sensitive thermal images for general purpose maintenance analysis. Measures temperatures up to $+250^\circ\text{C}$ and detects temperature differences as small as 0.10°C
- Measurement functions
Spotmeter, box with max./min. temperatures, isotherm above/below (depending on model).

FLIR i3	FLIR i5	FLIR i7
Thermal image quality: 60x60 pixels	Thermal image quality: 100x100 pixels	Thermal image quality: 140x140 pixels
Field of View: 12.5°(H) x 12.5°(V)	Field of View: 21°(H) x 21°(V)	Field of View: 29°(H) x 29°(V)
Center spot	Center spot	Spotmeter, area with max./min. temperature, isotherm above/below
Thermal sensitivity: 0.15°C	Thermal sensitivity: 0.10°C	Thermal sensitivity: 0.10°C

Price Each

Order Code	Product Code	Description	1+
WX54172 ‡	60101-0101	I3 Thermal Camera	£895.00
WX43937 ‡	60101-0201	I5 Thermal Camera	£1,236.00
WX54173 ‡	60101-0301	I7 Thermal Camera	£1,676.00
WX60837 ‡	T911085	Carry Pouch	£30.00
WX60838 ‡	T911025	Car Charger	£34.00
WX60839 ‡	T911093	Tool Belt	£30.00
WX60840 ‡	T910737	SD card	£17.00

Flir Ex Series Thermal Imaging/ Temperature Camera's



NEW

- The new Ex series offers temperature measurement together with an MSX-enhanced IR image and a visual image
- It is light-weight, compact and rugged
- The new user-friendly interface makes it easy to start using the camera without previous knowledge or camera training
- MSX, for easier interpretation of the image
- Visual and IR camera
- New user-friendly interface
- FOV 45°, well-suited for building and electrical/mechanical application
- Infrared camera supplied with:
 - Hard transport case
 - Battery (inside camera)
 - USB cable
 - Power supply/charger with EU, UK, US and Australian plugs
 - Printed Getting Started Guide
 - Printed Important Information Guide
 - User documentation CD-ROM
 - Warranty extension card
 - Thank you card
 - Calibration certificate

Price Each

Order Code	Product Code	Description	1+
WX60841 ‡	63901-0101	E4 Thermal Camera	POA
WX60842 ‡	63902-0202	E6 Thermal Camera	POA
WX60843 ‡	63903-0303	E8 Thermal Camera	POA
WX60844 ‡	T127826	Carry Pouch	POA
WX60845 ‡	T198532	Car Charger	POA
WX60846 ‡	T198404	Spare battery	POA
WX60847 ‡	T198531	2 Bay charger	POA

‡ Special delivery applies. Please ask for details

**Easy ordering by
phone, fax, email,
web or via your
local Brammer
Sales and Service
Centre**

Flir Ex0 Series Thermal Imaging Camera's



With an image quality of 320x280 pixels, the FLIR Exx series is ideal for Electrical/Mechanical inspections/maintenance to find faults and ensure equipment operates at maximum efficiency and safety. Also for Building inspections to find energy loss, moisture ingress and pipe leaks, and construction faults.

- 160x120 (E30 & E40), 240x180 (E50), 320x240 (E60) pixel resolution
- Sensitive (detects 0.1degC (E30), 0.05 to 0.07degC (E40), 0.045 to 0.05degC (E50 & E60) temp differences).
- 25x19 ° FOV.
- Interchangeable lenses (Optional wide angle or telephoto).
- Manual Focus.
- WiFi output to mobile devices via free APP (to iPAD/phone/ Android/laptop) - (not on E30)
- Bluetooth link to Clamp or Moisture Meter & Voice Headset - (not on E30)
- Thermal + Visual cameras (High quality in-built visual camera).
- Blend visual and thermal images (thermal/visual/picture-in-picture/ thermal fusion) - (not on E30)
- Jpeg images onto SD card.
- Video recording - (not on E30)
- Video output (composite)
- Radiometric video streaming via USB cable to PC – live analysis/ image capture/video recording.
- Large tough Touchscreen.
- Laser Pointer.
- Tripod mountable.
- Measurement functions (spot/box/isotherm temperature).
- High accuracy (+/- 2%).
- Text and Voice annotations. Building isotherm alarms on bx versions (dew point and insulation alarms).
- Compact and Lightweight (only 825g).
- Extremely rugged (2m drop tested and IP54 rated).
- Long battery life (4hrs).
- Free FLIR Tools software or optional upgrade to FLIR Tools+.
- Supplied with: Hard transport case
- Infrared camera with lens
- Battery
- Calibration certificate
- Camera lens cap
- Downloads brochure
- FLIR Tools software
- Handstrap
- Memory card
- Power supply, incl. multi-plugs
- Printed Getting Started Guide
- Printed Important Information Guide

- Service & training brochure
- USB cable
- User documentation CD-ROM
- Video cable
- Warranty extension card
- Range of Accessories listed below (Other accessories and Lenses available on request)

Price Each

Order Code	Product Code	Description	1+
WX54169 ‡	49001-1801	E30 Thermal Camera	£2,396.00
WX60848 ‡	49001-1901	E30bx Thermal Camera	£2,396.00
WX54170 ‡	49001-2001	E40 Camera Inc WiFi	£3,196.00
WX60849 ‡	49001-2401	E40bx Camera Inc WiFi	£3,196.00
WX54171 ‡	49001-2101	E50 Camera Inc WiFi	£4,396.00
WX60850 ‡	49001-2501	E50bx Camera Inc WiFi	£4,396.00
WX54168 ‡	49001-0602	E60 Camera Inc WiFi	£5,996.00
WX60851 ‡	49001-1002	E60bx Camera Inc WiFi	£5,996.00
WX60852 ‡	T911087	Carry Pouch	£34.00
WX60853 ‡	1196497	Car Charger	£34.00
WX60839 ‡	T911093	Tool Belt	£30.00
WX60840 ‡	T910737	SD card	£17.00
WX60854 ‡	T197752	Spare battery	£71.00

FLIR E30/E30bx	FLIR E40/E40bx	FLIR E50/E50bx	FLIR E60/E60bx
Thermal image quality: 160x120 pixels	Thermal image quality: 160x120 pixels	Thermal image quality: 240x180 pixels	Thermal image quality: 320x240 pixels
Thermal sensitivity: <0.1°C	Thermal sensitivity: <0.07°C (0.045°C)	Thermal sensitivity: <0.05°C (0.045°C)	Thermal sensitivity: <0.05°C (0.045°C)
Temperature range: -20°C to +350°C	Temperature range: -20°C to +650°C	Temperature range: -20°C to +650°C	Temperature range: -20°C to +650°C
Spotmeter: 1	Spotmeter: 3	Spotmeter: 3	Spotmeter: 3
1 box with min./ max./ average	3 boxes with min./ max./ average	3 boxes with min./ max./ average	3 boxes with min./ max./ average
Built-in 2 Mpixels camera	Built-in 3.1 Mpixels camera	Built-in 3.1 Mpixels camera	Built-in 3.1 Mpixels camera
Delta temperature measurement	Delta temperature measurement	Delta temperature measurement	Delta temperature measurement
Voice / text annotations	Voice / text annotations	Voice / text annotations	Voice / text annotations
MeterLink™	MeterLink™	MeterLink™	MeterLink™
Bluetooth® / WiFi	Bluetooth® / WiFi	Bluetooth® / WiFi	Bluetooth® / WiFi
1-2x continuous digital zoom	1-4x continuous digital zoom	1-4x continuous digital zoom	1-4x continuous digital zoom
PIP IR area on visual image	PIP Scalable IR area on visual image	PIP Scalable IR area on visual image	PIP Scalable IR area on visual image
Non-radiometric IR-video recording	Non-radiometric IR-video recording	Non-radiometric IR-video recording	Non-radiometric IR-video recording
Radiometric IR-video recording	Radiometric IR-video recording	Radiometric IR-video recording	Radiometric IR-video recording
Non-radiometric IR-video streaming	Non-radiometric IR-video streaming	Non-radiometric IR-video streaming	Non-radiometric IR-video streaming
	Thermal Fusion	Thermal Fusion	Thermal Fusion
		Instant report	

‡ Special delivery applies. Please ask for details

Flir T4xx Series Thermal Imaging Camera's



With an image quality of 320x240 pixels, the FLIR T4xx series is ideal for Electrical/Mechanical inspections/maintenance to find faults and ensure equipment operates at maximum efficiency and safety. Also for Building inspections to find energy loss, moisture ingress and pipe leaks, and construction faults.

- 320x240 pixel resolution
- Sensitive (detects 0.045degC temp differences).
- 25x19 ° FOV.
- Wide Temperature range (-20 to +650°C (T420 and T440bx) or -20 to +1200°C (T440))
- Interchangeable lenses (Optional wide angle, extra wide angle, telephoto or close-up macro).
- Autofocus & Manual Focus.
- Rotatable screen for easy imaging.
- WiFi output to mobile devices via free APP (to iPAD/phone/ Android/laptop).
- Bluetooth link to Clamp or Moisture Meter & Voice Headset.
- Thermal + Visual cameras (High quality in-built visual camera).
- Blend visual and thermal images (thermal/visual/picture-in-picture/ thermal fusion).
- Additional image blending - MSX
- Building alarms (Moisture and Insulation failure isotherms) (... bx versions)
- Jpeg images onto SD card.
- Video recording.
- Video output (composite)
- Radiometric video streaming via USB cable to PC – live analysis/ image capture/video recording.
- Periodic programmable image capture
- Large tough Touchscreen.
- Laser Pointer.
- Tripod mountable.
- 4x Zoom (T420), 8x zoom (T440 & T440bx).
- Measurement functions (spot/box/isotherm temperature).
- Additional measurement functions (Compass/Audible isotherm alarm)
- Image sketch on thermal/visual (T440 & T440bx only)
- High accuracy (+/- 2%).
- Text and Voice annotations
- Compact and Lightweight (only 825g).
- Rugged (drop tested and IP54 rated).
- Long battery life (4hrs).
- Free FLIR Tools software or optional upgrade to FLIR Tools+.
- Supplied as: Infrared camera with lens
- Battery (2 ea.)
- Battery charger
- Bluetooth headset
- Calibration certificate
- Camera lens cap
- Downloads brochure
- FLIR Tools download card
- FLIR Apps card
- Getting Started Guide
- Hard transport case
- Important Information Guide
- Memory card
- Neckstrap
- Optics brochure
- Power supply, incl. multi-plugs
- Service & training brochure
- Sunshield
- Thank you card
- USB cable
- User documentation CD-ROM
- Video cable
- Warranty extension card
- Range of Accessories listed below (Other accessories and Lenses available on request)

Price Each

Order Code	Product Code	Description	1+
WX60855 ‡	62101-0101	T420 Thermal Camera	£7,160.00
WX60856 ‡	62101-0501	T420bx Thermal Camera	£7,160.00
WX60857 ‡	62101-0301	T440 Thermal Camera	£8,760.00
WX60858 ‡	62101-0701	T440bx Thermal Camera	£8,760.00
WX60852 ‡	T911087	Carry Pouch	£34.00
WX60853 ‡	1196497	Car Charger	£34.00
WX60839 ‡	T911093	Tool Belt	£30.00
WX60840 ‡	T910737	SD card	£17.00
WX60854 ‡	T197752	Spare battery	£71.00

‡ Special delivery applies. Please ask for details

Flir T6xx Series Thermal Imaging Camera's



With an image quality of 640x480 pixels, the FLIR T6xx series is ideal for Electrical/Mechanical inspections/maintenance to find faults and ensure equipment operates at maximum efficiency and safety. Also for Building inspections to find energy loss, moisture ingress and pipe leaks, and construction faults.

- 640x480 pixel resolution
- Sensitive (detects 0.04degC (T620) or 0.035degC (T640) temp differences).
- 25x19 ° FOV, 15x11 ° FOV or 45x34 ° FOV (choose when ordering).
- Wide Temperature range (-40 to +650 °C) (optional upgrade to 2000°C) or -40 to 2000degC (T640)
- Interchangeable lenses (Optional wide angle, extra wide angle, telephoto or close-up macro).
- Viewfinder (T640/T640bx only)
- Continuous Autofocus (T640/T640bx), Autofocus & Manual Focus (all T6xx).
- Rotatable screen for easy imaging.
- WiFi output to mobile devices via free APP (to iPad/phone/Android/laptop).
- Bluetooth link to Clamp or Moisture Meter & Voice Headset.
- Thermal + Visual cameras (High quality in-built visual camera).
- Blend visual and thermal images (thermal/visual/picture-in-picture/ thermal fusion).
- Additional image blending - MSX
- Building alarms (Moisture and Insulation failure isotherms) (....bx versions)
- Jpeg images onto SD card.
- Video recording.
- Video output (composite)
- Radiometric video streaming via USB cable to PC – live analysis/ image capture/video recording.
- Periodic programmable image capture
- GPS
- Large tough Touchscreen.
- Laser Pointer.
- Tripod mountable.
- 8x zoom.
- Measurement functions (spot/box/circle or isotherm temperatures).
- Additional measurement functions (Compass/Audible isotherm alarm) (Compass on bx versions)
- Image sketch on thermal/visual (T640/T640bx)
- High accuracy (+/- 2%).
- Text and Voice annotations
- Compact and Lightweight (only 1.3g).
- Rugged (drop tested and IP54 rated).
- 2.5-3hrs battery life.
- Free FLIR Tools software or optional upgrade to FLIR Tools+.
- Supplied with: Infrared camera with lens
Battery (2 ea.)
Battery charger
Bluetooth headset
Calibration certificate
Downloads brochure
FLIR Tools download card
FLIR apps card
Getting Started Guide
HDMI-DVI cable
HDMI-HDMI cable
Hard transport case
Important Information Guide
Large eyecap
Lens cap
Memory card with adapter
Neck strap
Optics brochure
Power supply, incl. multi-plugs
Service & training brochure
Thank you card
Tripod adapter
USB cable, Std A to Mini-B
User documentation CD-ROM
Warranty extension card
- Range of Accessories listed below (Other accessories and Lenses available on request)

Price Each

Order Code	Product Code	Description	1+
WX60859	55901-2302	T620 25° - Thermal Camera	£15,960.00
WX60860	55901-2301	T620 15° - Thermal Camera	£16,520.00
WX60861	55901-2303	T620 45° - Thermal Camera	£15,960.00
WX60862	55901-4302	T620bx 25° - Thermal Camera	£15,960.00
WX60863	55901-4301	T620bx 15° - Thermal Camera	£16,520.00
WX60864	55901-4303	T620bx 45° - Thermal Camera	£15,960.00
WX60865	55902-2502	T640 25° - Thermal Camera	£20,760.00
WX60866	55902-2501	T640 15° - Thermal Camera	£21,320.00
WX60867	55902-2503	T640 45° - Thermal Camera	£20,760.00
WX60868	55902-4502	T640bx 25° - Thermal Camera	£20,760.00
WX60869	55902-4501	T640bx 15° - Thermal Camera	£21,320.00
WX60870	55902-4503	T640bx 45° - Thermal Camera	£20,760.00
WX60871	T911048	Carry Pouch	£38.00
WX60872	1910490	Car Charger	£34.00
WX60839	T911093	Tool Belt	£30.00
WX60840	T910737	SD card	£17.00
WX60873	T198055	Spare battery	£105.00

‡ Special delivery applies. Please ask for details

Flir P Series Thermal Imaging Camera's



With an image quality of 640x480 pixels, the FLIR/P660 series is ideal for Electrical/Mechanical inspections/maintenance to find faults and ensure equipment operates at maximum efficiency and safety. Also for Building inspections to find energy loss, moisture ingress and pipe leaks, and construction faults.

- 640x480 pixel resolution
- Sensitive (detects 0.03degC temp differences).
- 25x18 °, 45x34 ° or 12x9 ° FOV (choose when ordering).
- Panorama capable
- Wide Temperature range (-40 to +500 °C) (optional upgrade to 2000°C)
- Interchangeable lenses (Optional wide angle, extra wide angle, telephoto or close-up macro).
- Viewfinder (rotatable for easy imaging)
- Autofocus & Manual Focus.
- Rotatable screen for easy imaging.
- WiFi output to mobile devices via free APP (to iPad/phone/Android/laptop).
- Bluetooth link to Clamp or Moisture Meter & Voice Headset.
- Thermal + Visual cameras (High quality in-built visual camera).
- Blend visual and thermal images (thermal/visual/picture-in-picture/ thermal fusion).
- DDE (Dynamic Details Enhancement for Mil-spec image detail)
- Building alarms (Moisture and Insulation failure isotherms) (B660)
- Jpeg images onto SD card.
- Video recording.
- Video output (composite)
- Radiometric video streaming via USB cable to PC – live analysis/ image capture/video recording.
- Periodic programmable image capture
- Radiometric sequence burst recording to RAM.
- GPS
- Large 5.4" Tough Screen.
- Laser Pointer.
- Tripod mountable.
- 8x zoom.
- Measurement functions (spot/box/circle or isotherm temperatures).
- Additional measurement functions (Live line profile/Audible isotherm alarm)
- High accuracy (+/- 1%).
- Text and Voice annotations
- Compact and Lightweight (only 1.8g).
- Rugged (drop tested and IP54 rated).
- 3hrs battery life.
- Free FLIR Tools software or optional upgrade to FLIR Tools+.

- Supplied with:
Hard transport case
Infrared camera with lens
Battery (2 ea.)
Battery charger
Bluetooth headset
Bluetooth® USB micro adapter
Calibration certificate
Downloads brochure
FLIR Tools software
FireWire cable, 4/6
FireWire cable, 6/6
Lens cap (mounted on lens)
Lens cap (2 ea.)
Memory card-to-USB adapter
Memory card with adapter
Power supply, incl. multi-plugs
Printed Getting Started Guide
Printed Important Information Guide
Service & training brochure
Shoulder strap
USB cable
User documentation CD-ROM
Video cable
Warranty extension card
Wi-Fi USB micro adapter (depending on CE and FCC regulations regarding wireless equipment for your country)
- Range of Accessories listed below (Other accessories and Lenses available on request)

Price Each

Order Code	Product Code	Description	1+
WX60874	40402-3002	P660 25° - Thermal Camera	£25,560.00
WX60875	40402-3802	B660 25° - Thermal Camera	£25,560.00
WX60872	1910490	Car Charger	£34.00
WX60840	T910737	SD card	£17.00
WX60876	1196209	Spare battery	£101.00

‡ Special delivery applies. Please ask for details

Thermal Imaging Training Courses



Range of Thermal Imaging "thermography" courses

Price Per Person

Order Code	Product Code	Description	1+
WX60877	ITC-EXP-1011	Short course Introduction to thermography	£276.00
WX60878	ITC-EXP-2041	Short course electrical thermography	£500.00
WX60879	ITC-PRA-2011	ITC Practical Course – Solar Panel Inspection	£500.00
WX60880	ITC-EXP-2061	ITC Short course HVAC and Plumbing	£500.00
WX60881	ITC-CER-5101	Certification: ITC Cert. Course L1	£1,600.00
WX60882	ITC-CER-5201	Certification: ITC Cert. Course L2	£1,680.00

‡ Special delivery applies. Please ask for details

Fluke Ti100 Thermal Imager



FLUKE

- The Ti100 is the perfect general-purpose thermal imager designed specifically for the cost-conscious professional. It delivers incredible imaging at a great value and is the only ultra-rugged, one-handed professional thermal imager in its price class
- Temperature measurement range: -20 °C to +250 °C (-4 °F to +482 °F) Thermal sensitivity: ≤ 0.10 °C at 30 °C target temp (100 mK)
- Focus-free infrared**
The Ti100 offers the highest performing one-handed, focus-free infrared system available. From four feet (1.2 M) and beyond you'll always be in good focus no matter what you're inspecting
- Laser pointer**
A laser pointer allows you to accurately point to an area of concern to a colleague or customer
- Built rugged**
The new Fluke imagers are the most rugged and reliable, lightweight professional point-and-shoot thermal imagers on the market. They've been put through a battery of tests, including two-meter drops, vibration, extreme temperature and humidity, and electromagnetic/radio frequency interference testing to ensure they survive in your environment
- One-hand operation**
The Ti100 has been designed for simple, one-handed operation. Its lightweight, slim profile makes it easy to operate in either landscape or portrait format – your choice. All so you'll have one hand free to steady yourself or hold another tool

Technical Specification

Infrared resolution	160 x 120
Focus mechanism	Focus-free: ~48" and beyond
Thermal sensitivity (NETD)	≤ 0.10 °C at 30 °C target temp (100 mK)
Temperature measurement range (not calibrated below -10 °C)	-20 °C to +250 °C (-4 °F to +482 °F)
Temperature measurement accuracy	± 2 °C or 2 % (at 25 °C nominal, whichever is greater)
Laser pointer/torch?	Laser pointer only
Rechargeable batteries (4+ hours each)	1 rugged lithium-ion smart battery
Ruggedness and reliability	2-meter drop test, IP54 and integrated lens cap
Weight	0.726 kg (1.63 lbs.)
Warranty	2 years, with additional available

Price Each

Order Code	Product Code	Description	1+
WX54175	‡ Ti100	Ti100 Thermal Imager	£1,650.00

‡ Special delivery applies. Please ask for details

Fluke Ti105 Thermal Imager



FLUKE

NEW

- Industrial and commercial maintenance made easy
- Technology isn't working for you if it's slowing you down. The Fluke Ti100 Series thermal imagers specifically designed to help you do more in less time, while being at home in the harshest of environments. Light, rugged, easiest-to-use professional imagers
- IR-Fusion® technology
- Enjoy the industry's best point-and-shoot IR-Fusion camera. Fluke patented technology blends digital and infrared images into a single image to precisely document problem areas.
- Rugged one-hand operation
- Experience the most rugged and reliable, lightweight professional camera around.
- One-touch focus, laser pointer, and torch. Point-and-shoot simplicity.
- No one builds more rugged, ergonomic tools than Fluke.

Technical Specification

Ti105

Infrared resolution	160 x 120
Focus mechanism	Focus-free: 1.2m and beyond
Temperature measurement range	-20°C to +250°C
IR-Fusion® technology	Full infrared, PIP, Full visible
Laser pointer/torch	Laser Pointer and torch
Rechargeable batteries (4+ hours each)	1 rugged lithium-ion smart battery
Ruggedness and reliability	2-meter drop test, IP54 and integrated lens cap
Weight	0.726 kg (1.63 lbs.)
Warranty	2 years, with additional available

Price Each

Order Code	Product Code	Description	1+
WX60883	‡ Ti105	Thermal Imager	£2,366.00

‡ Special delivery applies. Please ask for details

Fluke Ti110 Thermal Imager



FLUKE

NEW

- Industrial and commercial maintenance made easy
- Technology isn't working for you if it's slowing you down. The Fluke Ti100 Series thermal imagers specifically designed to help you do more in less time, while being at home in the harshest of environments. Light, rugged, easiest-to-use professional imagers.
- IR-OptiFlex™ focus system
- Discover issues significantly faster with Fluke's revolutionary, ultra-rugged focus system.
- The IR-OptiFlex focus system gives you optimum focus by combining focus-free ease-of-use with the flexibility of manual focus on the same camera!
- IR-Fusion® technology
- Enjoy the industry's best point-and-shoot IR-Fusion camera. Fluke patented technology blends digital and infrared images into a single image to precisely document problem areas
- Rugged one-hand operation
- Experience the most rugged and reliable, lightweight professional camera around.
- One-touch focus, laser pointer, and torch. Point-and-shoot simplicity.
- No one builds more rugged, ergonomic tools than Fluke.

Technical Specification

Ti110

Infrared resolution	160 x 120
Focus mechanism	IR-Optiflex focus
Temperature measurement range	-20°C to +250°C
IR-Fusion® technology	Full infrared, PIP, Full visible, colour alarm
IR-Photnotes™ annotation system	Yes
Electronic compass	Yes
Multi-mode video recording	.AVI w/MPEG encoding
Voice annotation	Yes (60 seconds)
Laser pointer/torch	Laser Pointer and torch
Rechargeable batteries (4+ hours each)	1 rugged lithium-ion smart battery
Ruggedness and reliability	2-meter drop test, IP54 and integrated lens cap
Weight	0.726 kg (1.63 lbs.)
Warranty	2 years, with additional available

Price Each

Order Code	Product Code	Description	1+
WX60884	‡ Ti110	Thermal Imager	£3,295.00

‡ Special delivery applies. Please ask for details

Fluke Ti125 Thermal Imager



FLUKE **NEW**

- Industrial and commercial maintenance made easy
- Technology isn't working for you if it's slowing you down.
- The Fluke Ti100 Series thermal imagers specifically designed to help you do more in less time, while being at home in the harshest of environments.
- Light, rugged, easiest-to-use professional imagers.
- IR-OptiFlex™ focus system
- Discover issues significantly faster with Fluke's revolutionary, ultra-rugged focus system.
- The IR-OptiFlex focus system gives you optimum focus by combining focus-free ease-of-use with the flexibility of manual focus on the same camera!
- IR-Fusion® technology
- Enjoy the industry's best point-and-shoot IR-Fusion camera. Fluke patented technology blends digital and infrared images into a single image to precisely document problem areas
- Rugged one-hand operation
- Experience the most rugged and reliable, lightweight professional camera around.
- One-touch focus, laser pointer, and torch. Point-and-shoot simplicity.
- No one builds more rugged, ergonomic tools than Fluke
- Multi-mode video recording
- Troubleshoot with the thermal imager that recording focus-free video invisible light and infrared with full IR-Fusion capabilities.
- Monitor processes over time, easily create infrared video reports, and troubleshoot.

IR-PhotoNotes™ annotation system

Get an exact reference to your problem area by capturing up to three digital photos per file. Add images of equipment, motor nameplates, workroom doors or any other useful or critical information.

Technical Specification

Ti125	
Infrared resolution	160 x 120
Focus mechanism	IR-Optiflex focus
Temperature measurement range	-20°C to +250°C
IR-Fusion® technology	Full infrared, PIP, Full visible, colour alarm
IR-Photnotes™ annotation system	Yes
Electronic compass	Yes
Multi-mode video recording	.AVI w/MPEG encoding and .JS3 radiometric
Voice annotation	Yes (60 seconds)
Laser pointer/torch	Laser Pointer and torch
Streaming video output	USB video output
Rechargeable batteries (4+ hours each)	2 rugged lithium-ion smart battery
Ruggedness and reliability	2-meter drop test, IP54 and integrated lens cap
Weight	0.726 kg (1.63 lbs)
Warranty	2 years, with additional available

Price Each

Order Code	Product Code	Description	1+
WX60885 ‡	Ti125	Thermal Imager	£4,125.00

‡ Special delivery applies. Please ask for details

Dewalt 10.8V XR Li-Ion Imaging Thermometer



DEWALT **NEW**

- Patented imaging thermometer technology measures and displays temperature patterns
- Non-contact temperature measurement over a range of -10°C to 250°C
- Visual and thermal images can be blended to easily locate and identify faults
- Adjustable emissivity improves accuracy across a wide range of materials
- 56mm Colour LCD screen
- Intuitive user interface
- Photo capture and Micro SD Data recording
- Infrared Resolution - 15 x15 (225 pixel's) when temperature scanning.
- Visible Imaging Resolution - 105 x105 (11,025 pixel's) when an image is being taken.
- Screen Resolution - 320x240 (76,800 pixel's) through the view finder.
- Printed Photo Resolution - 210x137 (28,770 pixel's) when printing out an image.
- Standard Equipment: 1 x 1.5Ah XR Li-Ion battery pack, charger, 2GB Micro SD card, Heavy duty kitbox

Price Each

Order Code	Product Code	1+	3+	Price Each
WX60597	DCT416S1			£892.96

Condition & Vibration Monitoring

Fluke 805 Vibration Meter



FLUKE **NEW**

The reliable, repeatable, accurate way to check bearings and overall vibration. Make go or no-go maintenance decisions with confidence. The Fluke 805 Vibration Meter is a reliable vibration screening device available for front line mechanical troubleshooting teams that need repeatable, severity scaled readings of overall vibration and bearing condition.

- Innovative sensor design minimizes measurement variations caused by device angle or contact pressure
- Consistent data quality at both low and high frequency ranges
- Four-level severity scale assesses urgency of problems for overall vibration and bearing condition

- Exportable data via USB
- Trending Microsoft® Excel using built-in templates
- Store data and machine ID and export to excel for data trending
- Overall vibration measurement (10 Hz to 1,000 Hz) for acceleration, velocity and displacement units of measurement for a wide variety of machines
- Crest Factor + technology provides reliable bearing assessment using direct sensor tip measurements between 4,000 Hz and 20,000 Hz
- Coloured lighting system (green, red) and on-screen comments indicate how much pressure needs to be applied to take measurements
- Infrared temperature sensor increases diagnostic capabilities
- On-board memory holds up to 3,500 measurement
- Audio output for listening to bearing tones directly
- External accelerometer support for hard to reach locations
- Flashlight for viewing measurement locations in dark areas
- Large screen with high resolution for easy navigation and viewing

Vibration Meter

Low frequency range (Overall Measurement) 10 Hz to 1,000 Hz

High frequency range (CF + measure- 4,000 Hz to 20,000 Hz)

Severity Levels	Good, satisfactory, unsatisfactory, unacceptable
Vibration limit	50g peak (100g peak-peak)
A/D Converter	16-Bit
Signal to noise ratio	80dB
Sampling rate	
Low frequency	20,000 Hz
High frequency	80,000 Hz
Real time clock backup	Coin battery

Sensor

Sensitivity 100mV / g ± 10%

Measurement range 0.01g to 50g

Low frequency range (Overall Measurement) 10 Hz to 1,000 Hz

High frequency range (CF + measure- 4,000 Hz to 20,000 Hz)

Resolution 0.01g

Accuracy At 100 Hz ± 5% of measured value

Amplitude units

Acceleration g, m/sec²

Velocity in/sec, mm/sec

Displacement mils, mm

Price Each

Order Code	Product Code	Description	1+
WX60886	805	Vibration Meter	£1,171.00



Personal protection equipment, see our Personal Protection Equipment section

FLUKE CNX WIRELESS TEAM.

YOUR TOOLS...CONNECTED!



A suite of tools that connect together wirelessly to make your job easier. You solve problems faster. You troubleshoot quicker. That's revolutionary. That's Fluke.



Wireless modules

The team. Fluke CNX tools work together. Remotely. Simultaneously. Conveniently.



Wireless multimeter or thermal imager

The captains. Displays multiple readings in real time, at the same time, on one screen.



Fluke software

The statistician. Transfer recorded data to your computer, and easily create analyses and reports.



Learn more: Fluke.co.uk/CNX

FLUKE®

Fluke 810 Vibration Tester



FLUKE

- On-board identification and location of the most common mechanical faults (bearings, misalignment, unbalance, looseness) focus maintenance efforts on root cause, reducing unplanned downtime
 - Fault severity scale with four severity levels helps you prioritize maintenance work
 - Repair recommendations advise technicians on corrective action
 - On-board context sensitive help provides real-time tips and guidance to new users
 - 2 GB expandable on-board memory provides enough space for your machinery's data
 - Self-test function ensures optimal performance and more time on the job
 - Laser tachometer for accurate machine running speed promotes confident diagnoses
 - Tri-axial accelerometer reduces measurement time by 2/3 over single axis accelerometers
 - Viewer PC Software expands data storage and tracking capacity
- Use the Fluke 810 Vibration Tester to:
- Troubleshoot problem equipment and understand the root cause of failure
 - Survey equipment before and after planned maintenance and confirm the repair
 - Commission new equipment and ensure proper installation
 - Provide quantifiable proof of equipment condition and drive investment in repair or replacement
 - Prioritize and plan repair activities and operate more efficiently
 - Anticipate equipment failures before they happen and take control of spare parts inventories
 - Train new or less-experienced technicians and build confidence and skill across the team
- Includes:
- Vibration Tester with diagnostic technology
 - Tri-axial accelerometer, magnet mount, mounting pad kit with adhesive, accelerometer quick-disconnect cable
 - Laser tachometer and storage pouch
 - Smart battery pack with cable and adapters
 - Shoulder strap and adjustable hand strap
 - Viewer PC software
 - Mini USB to USB cable
 - Getting Started Guide, illustrated quick reference guide, Users Manual CD-ROM,
 - Carrying case
- Please ask your local Brammer Branch or Sales Representative for more information and a possible demonstration

Price Each

Order Code	Product Code	Description	1+
WX54174 ‡	810	Vibration Meter	POA

‡ Special delivery applies. Please ask for details

The SKF Machine Condition Advisor



SKF

- Designed to help simplify machine maintenance and prevent costly failures, the handheld SKF Machine Condition Advisor puts the benefits of machine monitoring within reach for any maintenance and operations teams
- By measuring machine vibration and temperature at the same time, the SKF Machine Condition Advisor can quickly and accurately assess the condition of rotating equipment throughout your facility
- Ideal for novice and expert users alike, the SKF Machine Condition Advisor makes it easy to implement basic maintenance practices without extensive training
- Suitable for a wide range of industrial rotating machinery, the SKF Machine Condition Advisor provides early warning of potential problems before failures occur
- Applications
 - Medium-sized and electrical machines (160-315mm shaft heights)
 - Large-sized and electrical machines (315mm+ shaft heights)
 - Multi-vane impeller pumps, integrated drivers, and more
- The SKF Machine Condition Advisor provides an overall "Velocity" vibration reading that measures vibration signals from the machine and automatically compares them to pre-programmed ISO standards. Simultaneously, the unit applies an SKF technique called "Enveloped Acceleration" and compares it to established bearing vibration guidelines to indicate conformity or potential bearing damage
- The SKF Machine Condition Advisor also measures temperature using an infrared sensor to indicate uncharacteristic heat
- Lightweight, compact, and ergonomically designed, the SKF Machine Condition Advisor fits neatly in the belt holster, in a pocket or in a toolkit
- Exceptionally durable, the unit is rated IP 54 for use in harsh operating environments
- Internal Vibration Sensor-integrated piezoelectric accelerometer
- Range: 0.7-65 mm/s (RMS) 0.04-3.60 in/s meets ISO 10816
- Frequency Range: 10-1000 Hz meets ISO 2954
- Optional remote accelerometer/sensor with cable and magnet for Machine Condition Advisor (CMAS 100-SL)
- Temperature Sensor: internal IR temp. sensor
- Temp Range: -20 to 200 degrees C (-4 to 392 F)
- IR Temp Accuracy: +/- 2 C (+/- 3.6 F)
- Distance: Maximum 10 cm (4 in) from target.
- Dimensions: length 200 mm width 47 mm height 25.4 mm
- Weight: 125 g (4.4 oz)

Price Each

Order Code	Product Code	Description	1+
WX60888	CMSS200-02-SL	MCI PK2	£312.30
WX60889 ‡	CMSS200-10-SL	MCI PK10	£1,353.30
WX60890 ‡	CMSS200-50-SL	MCI PK50	£4,892.70

Price Each

The SKF Machine Condition Indicator



SKF NEW

- The SKF Machine Condition Indicator (MCI) is an economical single axis vibration monitor which can be stud or glue mounted
- Suitable for permanent monitoring of semi-critical machinery in plants with constant operating conditions & speeds from 900 – 3600 rpm
- The MCI measures:
 - Velocity for overall machine health (misalignment, imbalance etc)
 - Enveloped Acceleration to detect bearing degradation
 - Checks surface temperature
- The MCI has also built-in intelligence to avoid false alarming
- 3 year battery life (with one unacknowledged alarm)
- CMSS 200-02-SL SKF Machine Condition Indicator includes:
 - Two battery operated units, Two CMAC 225 read-keys (magnets), Two CMAC 230 threaded mounting studs (1/4-28 to 1/4-28), Two CMAC 231 adapter mounting studs (1/4-28 to M8), Two CMAC 200-REF reference cards, One Installation Instruction card, One product reference CD
- CMSS 200-10-SL SKF Machine Condition Indicator includes:
 - 10 battery operated units, Four CMAC 225 read-keys (magnets), Four CMAC 200-REF reference cards, Two Installation Instruction cards, One product reference CD
- CMSS 200-50-SL SKF Machine Condition Indicator includes:
 - 50 battery operated units, 10 CMAC 225 read-keys (magnets), CMAC 200-REF reference cards, Five Installation Instruction cards, One product reference CD
- The mounting studs are not included in the 10-pack CMSS 200-10-SL or 50-pack CMSS 200-50-SL and must be ordered separately

Price Each

Order Code	Product Code	Description	1+
WX60891 ‡	CMAC231	Adaptor Mount Stud PK1	£3.33
WX60892 ‡	CMAC231-10	Adaptor Mount Stud PK10	£32.84
WX60893 ‡	CMAC231-50	Adaptor Mount Stud PK50	£131.38

Price Each

Order Code	Product Code	Description	1+
WX60891 ‡	CMAC231	Adaptor Mount Stud PK1	£3.33
WX60892 ‡	CMAC231-10	Adaptor Mount Stud PK10	£32.84
WX60893 ‡	CMAC231-50	Adaptor Mount Stud PK50	£131.38

‡ Special delivery applies. Please ask for details



Intelligent

and reliable SKF Machine Condition Indicator



Reliability meets affordability

The stand-alone SKF Machine Condition Indicator is a robust, battery-operated machine vibration/temperature monitoring device that reliably highlights impending machine failures.

This rugged device monitors your plant's non-critical machinery without the need for expensive hard wiring and electrical power supply.

More intelligent than conventional sensors, the SKF Machine Condition Indicator is a smart device that takes measurements, verifies alarm condition and displays asset status via three multi-coloured LEDs.

Customer benefits:

- When an alarm status is detected and verified, the three LED's on the unit will blink accordingly
- Performs assessments every three hours
- Use of filter bands with proven SKF Enveloped Acceleration results in highly reliable indications
- Provides early indication of bearing degradation

For further information visit: www.skf.com/mci



SKF (U.K.) Limited
01582 490049
www.skf.co.uk

SKF[®]

Machine Health Checker



- A suite of easy to use and affordable hand held instruments
 - The ideal products for fast track into effective Condition Monitoring
 - With the optional Air Leak Detector turns it into a powerful instrument to help save energy
 - All work down to 35Rpm, most, to 0.25 Rpm
 - Training is available for all models
 - The data logging versions work from Windows 98 through to Vista
 - MHC (Machine Health Checker) – Memo Pro version will, if required, perform defect repetition analysis of enveloped spectra (Software included on the Memo Pro)
 - Dimensions on all products: HxWxD 470x370x160mm
 - Below we list the two most popular versions
- Accessories included:-
- Hard Carry case
 - Std Magnetic Mount sensor
 - Ear defender headphones
 - 230VAC battery charger
 - 2 sets of rechargeable batteries
 - Leads and monitoring pads

Other accessories available
Air leak detector (see additional image)
Permanent sensors
Extended probes

Ask your local Sales & Service Centre for more details

Price Each

Order Code	Product Code	Description	1+
WX43939 ‡	MHC-CLASSIC	Machine Health Checker	POA
WX38647	MEMOPRO	Data Analyser	POA
WX43940	AIR/40	Air Leak Detector	POA

‡ Special delivery applies. Please call for details

Pen Vibration Meter



- Measures RMS Acceleration and Velocity with metric and imperial units
- Ranges — Acceleration (RMS): 656ft/s²; 20.39g; 200m/s²
- Velocity (RMS): 7.87in/s; 2.00cm/s; 200mm/s
- Wide frequency range of 10Hz to 1kHz
- Resolution to 1ft/s²
- 0.01g; 0.1m/s² and 0.02in/s; 0.01cm/s; 0.1mm/s
- Basic accuracy of ±(5% + 2 digits)



Contact Brammer on 0870 240 2100

- Zero adjustment
- Data Hold freezes the reading in the display
- Water and dust resistant to IP65
- Low battery indicator
- Complete with test pin tip, magnetic base, 4 x AAA batteries and pouch case

Price Each

Order Code	Product Code	Description	1+	3+
WX60894 ‡	VB400	Vibration Pen	£364.00	£346.57

‡ Special delivery applies. Please call for details

Electronic Stethoscope TMST 3



- The noise or vibration from the machine is picked up by the stick probe and transmitted to a transducer
- In the transducer the vibrations are converted into an electrical signal, which is processed and amplified by the electronics of the instrument
- The handset has two outputs for the amplified signal
- One is for connecting the headset, the other to connect a tape recorder
- The handset is an approved ear defender in accordance with EN 352-1:1993 and pr EN 352-3
- Application:
For detecting, tracing and diagnosing the source of all kinds of machinery noise. Damaged bearings, valve chatter, tappet noise, piston slap, gear and pump noise
- Technical Data:
Frequency range; 30 Hz-15kHz
Operating temperature; -10 to +45° C (14-113° F)
Output volume; Adjustable in 32 levels
Led indicator; Power on, Sound volume, Battery low
Maximum recorder output; 250 mV
Headset; 48 Ohm (with ear defender)
Auto switch off; Yes, after 2 min
Battery; 4 x AAA/R03 (included)
Battery lifetime; 30 hours (continuous use)
Dimensions; handset 220 x 40 x 40 mm (8.6 x 1.6 x 1.6 in)
Probe length; 70 and 220 mm (2.8 and 8.7 in)
Weight; Total weight 1 560 g (3.4 lb)

Price Each

Order Code	Product Code	Description	1+
WX36066 ‡	TMST3	Stethoscope	£444.59

‡ Special delivery applies. Please call for details

Vibration Pen



- Measurement range RMS vibration velocity 0.1mm/s to 199.9mm/s
- Frequency range 10 Hz to 1 kHz
- Display 4 digit LCD display
- Hold value of last reading
- Accelerometer integrated
- Power supply 1.5V button cell batteries (2 pcs)
- Auto shut-off after 40 seconds

- Battery capacity approx 5 hours continuously
- Operating temperature 0°C to 40°C, < 85% RH
- Dimensions 150mm x 22mm x 18mm
- Weight approx 55gr including batteries

Price Each

Order Code	Product Code	Description	1+	3+
WX37244 ‡	W-TV200	Vibration Pen	£350.92	POA

‡ Special delivery applies. Please call for details

C-Cubed VM320 Vibration Analyser



NEW

- The VibMeter 320 is a simple to use vibration analyser. Results of the analysis are easy to understand with colour coded alarm screens.
- Overall vibration values with colour coded alarm levels for ISO values, bearing condition and machine fault diagnosis.
- High resolution zoom-able vibration spectrum display with fully dynamic cursor displaying frequency and amplitude values
- Frequency band alarms based on run speed (RS) can be used to diagnose machine faults due to unbalance (1x RS), misalignment (2x RS) and looseness (3x RS)
- Size 200 mm x 60 mm x 26 mm
- Weight 280g (not including magnet)
- Environmental
Water, Sand & Dust: IP67 Waterproof
Operating: 0°C to 50°C
Storage: -20°C to 70°C
- Power supply 2 x AA batteries
- Battery life Auto power OFF - typically 50 hours operating time depending on brightness setting.
- Frequency range 2 Hz to 1 kHz (ISO), 1 kHz to 10 kHz (BDU)
- Max frequency resolution 1.25 Hz @ 800 lines FFT setting
- Displayed Vibration Amplitude Units Acceleration in g
- Velocity in mm/s (or inches/s)
- Bearing noise in BDU (bearing damage units)
- Displayed Frequency Units Hertz (Hz), RPM or CPM
- Input range +/- 50g
- Dynamic range 72 dB (0.05g resolution)
- VA diagnostic bands
(RPM = run speed) Unbalance 1x RPM
Misalignment 2x RPM
Looseness 3x RPM
- Accessories: Screw in probe tip (1/4" UNF 28), Nylon carrying case
- Options: Accelerometer mounting magnet, Extended probe tip (stinger)

Price Each

Order Code	Product Code	1+
WX60895 ‡	VM320	£320.00

‡ Special delivery applies. Please call for details

C-Cubed VM330 Vibration Analyser with Trending Software



- The VibMeter 330 is a simple to use vibration analyser with PC based trending software. Results of the analysis are easy to understand with colour coded alarm screens. Exception warnings can be automatically e-mailed to designated people.
- Overall vibration values with colour coded alarm levels for ISO values, bearing condition and machine fault diagnosis
- High resolution zoom-able vibration spectrum display with fully dynamic cursor displaying frequency and amplitude values
- Frequency band alarms based on run speed (RS) can be used to diagnose machine faults due to unbalance (1x RS), misalignment (2x RS) and looseness (3x RS)
- VibTrend software enables PC based trending of an unlimited number of machines with up to ten measurement points per machine
- This graphical trending over time is a powerful tool in Identifying wear in equipment over time – and scheduling maintenance to avoid failures
- Up to 1,000 Machines can be loaded from VibTrend as a route to the VM330.
- The VM330-PROFESSIONAL kit includes; VM330, BNC accelerometer, accelerometer magnet, unrestricted VibTrend software and USB docking cradle.
- Size 200 mm x 60mm x 26mm
- Weight 280g (not including sensor)
- Environmental Water, Sand & Dust: IP67 Waterproof Operating: 0°C to 50°C Storage: -20°C to 70°C
- Power supply 2 x AA batteries
- Battery life Auto power OFF - typically 50 hours operating time depending on brightness setting.
- Frequency range 2 Hz to 1 kHz (ISO), 1 kHz to 10 kHz (BDU)
- Max frequency resolution 1.25 Hz @ 800 lines FFT setting
- Displayed Vibration
- Amplitude Units
- Acceleration in g
- Velocity in mm/s (or inches/s)
- Bearing noise in BDU (bearing damage units)
- Displayed Frequency Units Hertz (Hz), RPM or CPM
- Input range +/- 50g
- Dynamic range 72 dB (0.05g resolution)
- VA diagnostic bands, (RS = run speed), Unbalance 1x RS, Misalignment 2x RS, Looseness 3x RS
- Options:
- Tacho strobe/flashlight attachment
- Bluetooth headphones/ear defenders

Price Each

Order Code	Product Code	1+	
WX60896‡	VM330-PROFESSIONAL	£990.00	
WX60897‡	VM33X-DOCK	£35.00	
WX60898‡	HS100-CWCBL	BNC Accelerometer	£168.00
WX60899‡	C312-233	Accelerometer Magnet	£82.00
WX60900‡	C3-BTHP	Bluetooth Headphones	£390.00
WX60901‡	C3-STROBE	Tacho Strobe	£75.00
WX60902‡	C312-372	100mm Stinger	£45.00

‡ Special delivery applies. Please call for details

C-Cubed Pocket VibrA Ultra

NEW

- The Pocket VibrA Ultra is a rugged yet very portable Vibration Analyser with high resolution (up to 51,000 lines) and C-Trend software for trending of results and working with very detailed analysis to interpret envelope demodulation and bearing database information

- Fully waterproof & rugged IP67 construction
- High res (0.3Hz) frequency spectra from 0Hz to 15kHz
- Auto detects instability, unbalance, misalignment & looseness
- User selectable envelope demodulation filters
- Analyses bearing wear
- Built-in IEPE (constant current) accelerometer power supply
- Automatic RFID measurement point identification
- Saves and reads measurement values to/from RFID tags
- C-Trend Ultra software functionality:
- Asset manager: Displays asset status (OK, warning or critical) for ISO levels, bearing quality etc, with date and time of readings, Assets are easily Created, Edited, Copied and Pasted Automatic set up and download of Routes to Pocket VibrA unit
- Reports can be automatically created on individual or groups of assets (selected via the Report Wizard) as editable Word files with embedded Excel graphs for trends and frequency plots.
- Automatic emailing of alarms on upload of readings
- IP67 sealed against accidental immersion (1m for 30 min)
- Drop: MIL-STD-810F, Method 516.5, Procedure IV 26 drops from 1.22 m
- 6 additional drops at -20°, 6 additional drops at 60°
- Operating: -30° to 65°, Storage: -40° to 70°
- Humidity: MIL-STD-810F, Method 507.4
- Sand & Dust: IP67, MIL-STD-810F, Method 510.4, Procedures I & II
- Power supply Rechargeable battery (charger included)
- Battery life Typically 20 hours operating time depending on backlight usage.
- Frequency ranges 0 Hz to 1 kHz, 0 Hz to 15 kHz
- Frequency resolution Up to 0.3 Hz
- 400, 800, 1600, 3200, 6400, 12800, 25,600 or 51,200 lines FFT
- Displayed Amplitude Units Acceleration in g
- Velocity in mm/s (or inches/s)
- Bearing noise in BDU (bearing damage units)
- Displayed Frequency Units Hertz (Hz), RPM or CPM
- Input range +/- 50g with standard 25mV/g C-Cubed accelerometer
- Dynamic range 120 dB
- +/-. 50g to +/- 0.0004g with standard accelerometer
- Auto set up of VA diagnostic bands (RPM = run speed) Instability 0 x RPM - 0.75 x RPM, Unbalance 0.75 x RPM - 1.5 x RPM, Misalignment 1.5 x RPM - 2.5 x RPM, Looseness 2.5 x RPM - 3.5 x RPM
- Envelope demodulation filters Fully user selectable high pass and low pass filter cut off frequencies
- IEPE accelerometer interface Constant current accelerometer power supply (+20 volts @ 2mA)
- Numeric Keypad or Touch screen operation Stylus free collection of maintenance data using numeric key pad or by touching screen
- Included accessories: Carrying case with neck strap, Stylus lanyard

‡ Special delivery applies. Please call for details

Price Each

Order Code	Product Code	1+
WX60903‡	ULTRA	£6,000.00

C-Cubed Pocket VibrA Balancer

NEW

- The Pocket VibrA Balancer is a rugged yet very portable field balancer. The easy to use Balancing Wizard provides step-by-step screens to lead even a novice user through single or two plane balancing jobs
- Balancing wizard Single and two plane balancing wizard guides you through the process of balancing. Graphical (vector plot) and data table presentation with colour coding. Live vector plot shows stability of heavy spot.

Built-in weight splitter for fixed point balancing (e.g. fan blades) ISO 1940/1 quality grade balancing system.

Saves and Loads balancing sessions.

Vibration units can be chosen as displacement, velocity or acceleration.

Metric, Imperial or Custom units of measurement for mass and length.

Angle measurement with or against rotation.

RPM Measurement:

Measures rotation speed of equipment using optical probe and reflective tape.

Up to 50,000 RPM with 30° reflective tape cover.

Display in RPM and Hz.

Built-in Balancing Calculator:

Estimates trial weight for balancing process based on rotor weight, rotor speed and radius of trial weight.

Split or combine balancing weights

Drill depth calculator for removing weight from rotors

Automatic report generator:

Saves editable balancing reports to PC for print out or archive Includes all balancing parameters (run speed, measurements, weights and angles etc.)

Colour coded tables and vector plots displayed in report

Size 220 mm x 95mm x 45mm

Rotor Types

Predefined rotor types for two plane balancing

Environmental

ISO Quality Grade
Water

: MIL-STD-810F, Method 512.4

IP67 sealed against accidental immersion

(1m for 30 min)

G0.4/G1/G2.5/G6.2/G16/G40/G100/G250/G630

Drop

: MIL-STD-810F, Method 516.5, Procedure IV

26 drops from 1.22 m

accelerometer with built-in ID and sensitivity

6 additional drops at -20°C

calibration (nominally 25mV/g)

6 additional drops at 60°C

Operating: -30° to 65°C

Vibration Measurement Units
Storage

: -40° to 70°C

Displacement

Humidity

: MIL-STD-810F, Method 507.4

Velocity

Sand & Dust

: IP67, MIL-STD-810F,

Method 510.4,

Procedures I & II

Acceleration
Battery life

Typically 8-20 hours operating time depending on backlight usage.

Balance View

Tabular and Graphical data representation

RPM Measurement

10 RPM to 50,000 RPM

Colour coded readings

Red: outside specified limit

Green: inside specified limit

Balancing RPM range

600 RPM to 6,000 RPM

Dynamic range

+/- 50g to +/- 0.01g with standard

Input range

C-Cubed accelerometer

+/- 5g to +/- 0.001g with high sensitivity

+/- 5g with high sensitivity C-Cubed accelerometer

C-Cubed accelerometer

Order Code Product Code

WX60904‡ BALANCER

1+

£6,000.00

‡ Special delivery applies. Please call for details

4-Channel Vibration Meter/Data Logger



NEW

EXTECH
INSTRUMENTS
A FLIR COMPANY

- Large backlit LCD display simultaneously displays four channels
- Selectable data sampling rate: 1, 2, 5, 10, 30, 60, 120, 300, 600, 1800, 3600 seconds
- Remote vibration sensor with magnetic adapter on 39"(1m) cable
- Wide frequency range of 10Hz to 1kHz
- Basic accuracy of $\pm(5\% + 2$ digits)
- RMS or Peak Value measurement modes
- Data Hold, Auto Power Off
- Complete with 4 remote sensors, magnetic mounts, 8 x AA batteries, 100-240V Universal AC, Adaptor, SD card, and durable hard carrying case

Price Each

Order Code	Product Code	Description	1+	3+
WX60905	WX60905	4Ch Vibration Meter	£2,685.00	£2,557.13

‡ Special delivery applies. Please call for details

Vibration Meter/Data Logger



NEW

EXTECH
INSTRUMENTS
A FLIR COMPANY

- Remote vibration sensor with magnetic adapter on 47.2"(1.2m) cable
- Wide frequency range of 10Hz to 1kHz
- Basic accuracy of $\pm(5\% + 2$ digits); Meets ISO2954
- RMS, Peak Value or Max Hold measurement modes
- Adjustable data sampling rate
- Offset adjustment used for zero function to make relative measurements
- Large backlit LCD
- Stores 99 readings manually and 20M readings via 2G SD card
- Record/Recall MIN, MAX, Data Hold and Auto power off
- Built-in PC interface
- Complete with remote sensor, magnetic mount, 6 x AA batteries, SD card, and hard carrying case

Price Each

Order Code	Product Code	Description	1+	3+
WX60906	WX60906	Vibration Meter	£655.00	£623.87

‡ Special delivery applies. Please call for details

Multimeter for Adjustable Speed Drives

Introduction to the Fluke 87

- In the past, motor repair meant dealing with traditional three-phase motor failures that were largely the result of dust, failed bearings, misaligned shafts, or just plain old age. But motor repair has changed in a big way with the introduction of electronically controlled motors, more commonly referred to as adjustable speed drives (ASDs). These drives present a unique set of measurement problems.
- Thanks to new technology (the new Fluke 87 Series V), now for the first time you can take accurate measurements with a DMM during the installation and maintenance of a drive and diagnose bad components and other conditions that may lead to failure.

Fluke 87 V Multimeter



 FLUKE

- The Fluke 87 Series V is the ideal multimeter for measuring adjustable speed drives
- The meter offers high accuracy and all the measurement functions you need
- Accurate voltage and frequency measurements on PWM output of motor drives (patent pending)
- Built-in thermometer (probe included)
- AC True RMS measurements
- 4000 count resolution (20.000 count in high resolution mode)
- 20 kHz bandwidth
- Digital display with bargraph and backlight
- Min/max/average recording
- 50 µs Fast Min-Max
- Touch Hold and relative modes
- Frequency, capacitance and duty cycle measurements
- Resistance, conductance, continuity and diode measurements
- Easy battery access without breaking the calibration seal
- Input alert warns when the leads are in the wrong inputs
- Classic design with removable holster
- Lifetime warranty
- Meets latest CAT IV safety standards

Functions

Voltage DC 1000 V

Voltage AC 1000 V

Current DC 10A

Current AC 10A

Resistance 50M Ohm

Conductance 60nS

Capacitance 9999µF

Frequency >200kHz

Temperature -200 to 1090 °C

80BK temperature probe -40 to 260 °C

Max. Resolution Accuracy

10µV $\pm(0.05\%+1)$

10µV $\pm(0.7\%+2)$

0.01µA $\pm(0.2\%+2)$

0.01µA $\pm(1.0\%+2)$

0.01 Ohm $\pm(0.2\%+1)$

0.001nS $\pm(1.0\%+10)$

0.01nF $\pm(1.0\%+2)$

0.01Hz $\pm(0.005\%+1)$

0.1°C 2.2 °C or 2%

Price Each

Order Code	Product Code	Description	1+	4+
WX30980	87V	87V Meter	£399.00	£387.92

Heavy Duty Multimeter

EXTECH EX510



EXTECH
INSTRUMENTS
A FLIR COMPANY

- Waterproof (IP67) and drop-proof (6ft)
- Dual sensitivity frequency functions
- 0.09% basic accuracy
- CAT IV-600V

Function

Display 6000 count

Basic DCV accuracy 0.09%

AC/DC Current 20A

AC/DC Voltage 1000V

DC Voltage 600V

Resistance 60MΩ

Frequency (electrical) 400Hz

Frequency (electronic) 40MHz

Duty Cycle 0.1 to 99.9%

Price Each

Order Code	Product Code	1+	4+
WX43945	EX510	£109.00	£103.94

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Test & Measurement 2029

Insulation Multimeters

1587/1577 Insulation Multimeter



- Two products in one: powerful insulation tester and full-featured multimeter
 - Provides maximum versatility for troubleshooting and preventative maintenance
 - Reliable and easy to use
 - Ideal for work on motors, cables, and switchgear
 - Large display with backlight
 - Filter for motor drive measurements (1587 only)
 - Insulation test (1587: 0.01MΩ to 2GΩ), (1577: 0.1MΩ to 600MΩ)
 - Insulation test voltages (1587: 50V, 100V, 250V, 500V, 1000V), (1577: 500V, 1000V) for many applications
 - Live circuit detection prevents insulation test if voltage >30V is detected for added user protection
 - Auto-discharge of capacitive voltage for added user protection
 - AC/DC voltage, DC milliVolts, AC/DC milliAmps, Resistance (0.10-50MΩ), Continuity
 - Capacitance, Diode Test, Temperature, Min/Max, Frequency (Hz) (1587 only)
 - Auto power off to save battery power
 - CAT III - 1000V, CAT IV - 600V measurement category
 - Included accessories: Remote probe, test leads and probes, alligator clips, (K-type thermocouple - 1587 only)
 - Accepts optional Fluke TPAK magnetic hanging system to free your hands for other work
 - Included: Rugged, utility hard case
 - Made in USA
- Image shown is the 1587 model

Price Each

Order Code	Product Code	1+	4+
WX38631	1587	1587 Meter	£520.00
WX38630	1577	1577 Meter	£438.00
WX38645	C25	Soft Case	£42.00

Digital Multimeters

Fluke 233 Remote Display Digital Multimeter



- The first Fluke digital multimeter with a detachable display is here
- The 233 wireless remote DMM allows maintenance professionals to address an age-old problem - display positioning
- The new Fluke 233 can be used for even the most common meter measurements and is especially suited for those situations where display viewing is challenging

- Removable magnetic display
 - No need to hold the meter to read measurement values
 - Improved visual focus on probes
 - Use as a conventional multimeter when the display is connected
 - Auto power off, radio is turned off when the display is connected to the meter
 - True-rms ac voltage and current for accurate measurements on non-linear signals
 - Large digit display with bright backlight
 - Displays may be interchanged between 233 meters
 - Counts 6000
 - Voltage: 1000 V AC/DC
 - Current: 10 A AC/DC
 - Resistance: 40 MΩ
 - Continuity / Diode
 - Capacitance: 10,000 pF
 - Frequency 500kHz
 - Min/Max/Avg Hold, Auto and Manual Range
 - Temp -40 °C to +400 °C (Display °C or °F)
 - Wireless Range 30 ft
 - Safety Rating CAT III 1000 V CAT IV 600 V
 - Warranty 3 Years
 - Size (H x W x L) cm 5.3 x 9.3 x 19.3
 - Weight 604 g
- Fluke 233 Remote Display Multimeter Includes:
- Getting Started Manual (Printed)
 - AA Batteries, installed
 - Test leads
 - AC72 Alligator clips
 - 80BK-A Temperature Probe
 - CD-ROM (user manual & technical notes and application images)

Price Each

Order Code	Product Code	1+	4+
WX45621	233	£248.00	£241.11

27 II & 28 II Multimeters - Waterproof & Rustproof!



- Waterproof & dustproof IP67 digital multimeters are designed for the toughest environments and users. These two new meters:
- Are made for customers who need a heavy duty, water and dust resistant digital multimeter
- Bring the old Fluke 27 up-to-date with a modern look, feel and feature set to match
- Have an improved feature set that extends the appeal of Fluke 27 by attracting industrial customers who work in harsh environments
- Address the needs of customers who prefer True-rms (Fluke 28 II) in a rugged DMM
- Have an extended operating temperature range -40° C to +55° C (5°F to 131°F) and 95% humidity for 20 minutes
- Are engineered and tested to withstand a 3 m (10.0 ft) drop with holster

Specification	27 II	28 II
DC voltage	Max. resolution	0.1 mV to 1000 V
	Accuracy	0.1 % + 1
AC voltage	Max. resolution	0.1 mV to 1000 V
	Accuracy	0.5 % + 3
DC current	Max. resolution	0.1 μA to 10 A
	Accuracy	0.2 % + 4
AC current	Max. resolution	0.1 μA to 10 A
	Accuracy	1.5 % + 2
Resistance	Max. resolution	0.1 to 50 MΩ
Display counts		6000
Capacitance		1 nF to 9999 μF

Specification	27 II	28 II
Frequency	0.5Hz Hz to 199.990.5Hz Hz to 199.99	kHz kHz
Temperature	—	-200 °C to +1090 °C
Low pass filter	—	Yes
(Measurement on VSD's)	—	
Compliance	CAT IV 600V, CAT III 1000V	CAT IV 600V, CAT III 1000V
IP rating	IP 67	IP 67
Power	3 x AA Batteries	3 x AA Batteries
Battery life	800 hours	800 hours

Price Each

Order Code	Product Code	1+	4+
WX45622	27II	£375.00	£364.58
WX45623	28II	£399.00	£387.92

Fluke 170 Series Multimeters



- The three models of the Fluke 170 Series are the new benchmark for general purpose multimeters, combining accuracy, includes ease-of-use, safety and reliability in a tough package
- Certified for use in all areas of the workplace including the most demanding category 4 (Cat IV)
- The new 170-series have the following features:
- True RMS voltage and current measurements
- 0.09% basic accuracy (177, 179)
- 6000 count resolution
- Digital display with analogue bar graph
- Display backlight (177, 179)
- Manual and automatic ranging
- Display Hold and Auto Hold (automatic 'hands free' storage)
- Frequency and capacitance measurements
- Resistance, continuity and diode measurements
- Temperature measurement probe included (179)
- Min-max-average recording
- Smoothing mode for stable measurement of noisy signals
- Easy battery exchange without opening the case
- Closed case calibration through front panel
- Ergonomic case with integrated protective holster
- EN61010-1 CAT III 1000V / CAT IV 600V
- Lifetime warranty

Function	Max	Max Resolution
Voltage DC	1000V	0.1mV
Voltage	1000V	0.1mV
Current DC	10A	0.01mA
Current AC	10A	0.01mA
Resistance	50M Ohm	0.1 ohm
Capacitance	10,000μF	1nF
Frequency	100kHz	0.01Hz
Temperature	-40/400.C	0.1.C

Price Each

Order Code	Product Code	1+	4+
WX30975	175	£193.00	£187.64
WX30976	177	£210.00	£204.17
WX30977	179	£233.00	£226.53

FLUKE-C90



FLUKE

- Soft meter case from Fluke
- Zippered carrying case with inside pocket and belt loop
- Suitable for the following Fluke meters; 170 series, 80 series, 70 series, 27, 712, 714, 715, 717, 724, 725, 787, 789 meters and 50 series meters

Price Each

Order Code	Product Code	1+	4+
WX37146	C90	£28.80	£27.00

EXTECH EX530



EXTECH

- Waterproof (IP67) and Drop-proof (6ft)
- Dual sensitivity frequency functions
- True RMS
- 0.06% basic accuracy
- CAT IV-600V
- 40,000 count display
- 20A current range

Function	
Display count	40000
Basic DCV accuracy	0.06%
AC/DC Current	20A
AC/DC Voltage	1000V
DC Voltage	600V
Resistance	40MΩ
Frequency	400Hz/100MHz
Capacitance	40mF
Temperature	-50 to 1382°F
Duty Cycle	0.1 to 99.9%

Price Each

Order Code	Product Code	1+	4+
WX43942	EX530	£157.00	£149.87

Fluke 110 Series Multimeters



FLUKE

- The 110 range of multimeters pack more features than many other meters twice the size
 - The 110-series have the following feature set:
 - True RMS measurements
 - 0.7% basic accuracy
 - 6000 count resolution
 - Digital display with analog bargraph
 - AC/DC current measurements (114, 117)
 - Backlight display (117)
 - Manual and automatic ranging
 - Display Hold
 - Frequency and capacitance measurements
 - Min-max-average recording
 - Resistance, continuity and diode measurements
 - Easy battery change without opening the case
 - Closed case calibration through front panel
 - Compact case with separate holster
 - EN61010-1 CAT III 600V
 - Three year warranty
- Image shown is the Fluke 117 model

Function	Max	Max Resolution	Accuracy
Voltage DC	600V	1mV	+ (0.7%+2)
Voltage AC	600V	1mV	+ (1.0%+3)
Current DC	10A	1mA	+ (1.0%+3) (111/112)
Current AC	10A	10mA	+ (1.5%+3) (111/112)
Resistance	40M Ohm	0.1 Ohm	+ (0.9%+1)
Capacitance	10,000µF	1nF	+ (1.9%+2)
Frequency	50KHz	0.01Hz	+ (0.1%+2)

Price Each

Order Code	Product Code	1+	4+
WX30969	114	£128.00	£124.44
WX30970	115	£151.00	£146.81
WX30971	117	£180.00	£175.00

AVO 300 Series Multimeter



Megger

- The AVO300 range of Megger digital multi-meters are tough compact instruments designed for the contracting electrician, but are also suitable for a wide range of applications and users
- Both instruments offer a range of measurement modes for AC and DC applications, resistance and current measurement
- Designed for Electricians
- Fully auto ranging
- Large display characters
- Separate battery and fuse cover
- Data hold
- Min/Max store
- IEC 61010 compliant
- Suitable for applications to CATIII 600 V
- Three ranges are provided for current measurement of either AC or DC current from 0.1uA to 10A; fused inputs protect both the user and the instrument in the case of excess current
- Resistance can be measured directly on the ohms range from Ohms up to 1.999Mohms
- A continuity buzzer range is also available for checking low resistance between two points
- The buzzer sounding if the resistance is less than 500ohms (350ohms on the AVO310)
- Additionally a diode range exists for testing forward and reverse bias operation of transistors and diodes
- A low battery indicator warns when batteries are low, and an auto-off function ensures no unnecessary battery wastage occurs if accidentally left on
- Display:
 - AVO300: 4000 counts LCD display, 25.4mm high
 - AVO310: 4000 counts LCD display, 20mm high
- Backlight on AVO310 only
- The Max/Min function on the AVO310 freezes the maximum or minimum measured result on the screen so display does not have to be continually watched to capture a momentary increase or fall in circuit voltage, resistance or current

Price Each

Order Code	Product Code	1+	4+
WX53601	AVO300	£86.37	£83.67
WX53602	AVO310	£96.53	£93.52

C50 MultiMeter Case



FLUKE

- Soft meter case from Fluke
- Zippered carrying case with inside pocket belt loop and inside meter strap
- Dimensions: (H x W x D) 192 x 90 x 38 mm
- Suitable for the following Fluke meters; 110 series, 70 series, 27 meter and 50 series

Price Each

Order Code	Product Code	1+	4+
WX36035	C50	£28.00	£27.22

Can't see it here,
just call
0870 240 2100

MM34 General Purpose Multimeter



MARTINDALE

NEW

- The Martindale MM34 is a general purpose multimeter, suitable for a range of standard applications
- It has four main functions, AC Volts, DC Volts, DC Amps and Ohms, along with a diode test and battery test
- Readings are clearly displayed on the large 3 1/2 digit LCD display and its ergonomic design makes it comfortable to hold and the rotary dial makes selection of the required range simple
- The MM34 is supplied with standard test leads, battery and instruction manual
- AC Voltage: 100mV to 600V (2 ranges), 50Hz - 500Hz
- DC Voltage: 1mV to 600V (4 ranges)
- DC Current: 0.1µA - 10A (5 ranges)
- Resistance: 0.1Ω to 20MΩ (5 ranges)
- Battery Test: 1.5V & 9V
- Diode test
- Overvoltage: CAT III 600V
- Dimensions: 143 x 68 x 47mm
- Weight: 206g approx

Price Each

Order Code	Product Code	1+	3+
WX60907	MM34	£33.00	£31.68

MM39 Digital Multimeter



MARTINDALE

NEW

- The Martindale MM39 multimeter is autoranging and features a large rotary knob for easy selection of the required test, even when wearing gloves
- There are two additional buttons, one to lock the range and the other to hold the result on the display
- The multimeter functions include DC Volts, AC Volts, AC Amps, Ohms, Continuity with Audible Indication and Diode Test.
- Each MM39 multimeter is supplied with standard test leads, batteries, protective rubber holster and instruction manual.
- AC Voltage: 0.1mV to 600V (5 ranges), 50Hz - 500Hz
- DC Voltage: 0.1mV to 600V (5 ranges)
- AC Current: 0.01A to 10A, 50Hz to 500Hz
- DC Current: 0.01A - 10A
- Resistance: 0.1Ω to 20MΩ (6 ranges)
- Continuity Buzz at <25Ω
- 3 1/2 digit LCD display
- Auto polarity & zero
- Data hold
- Diode test
- Overvoltage: CAT III 600V
- Dimensions: 143 x 68 x 47mm
- Weight: 315g approx

Price Each

Order Code	Product Code	1+	3+
WX60908	MM39	£36.00	£34.56

MM44 General Purpose Digital Multimeter



MARTINDALE

NEW

- With 11 functions, including a 10A range, and a basic accuracy of 0.8%, this is a great all-round multimeter
- Main functions include AC Volts, DC Volts, DC Amps, AC Amps, Ohms, Capacitance, Frequency, Battery Test, Diode Test, Transistor Test, Logic Test & Continuity Test with Audible Indication.
- The meter features ceramic fuse protection and will beep if the leads are incorrectly connected, to prevent misuse.
- Each MM44 multimeter is supplied with standard test leads, battery, protective rubber holster, spare fuse and instruction manual
- AC Voltage: 100mV to 600V (5 ranges), 50Hz - 500Hz
- DC Voltage: 100µV to 600V (5 ranges)
- AC Current: 10µA to 10A (3 ranges), 50Hz to 500Hz
- DC Current: 10µA - 10A (4 ranges)
- Resistance: 100mΩ to 2000MΩ (7 ranges)
- Continuity Buzz at <100Ω
- Capacitance: 1pF to 20µF (5 ranges)
- Logic Test: Hi 2.8V +/- 0.8V, Lo 0.8V +/- 0.5V
- Frequency: 1Hz to 15MHz (5 ranges, autoranging)
- Battery Test: 1.5V, 9V
- 3 1/2 digit LCD display with automatic polarity and zero
- Diode & Transistor test
- Overvoltage: CAT III 600V
- Dimensions: 147 x 70 x 39mm
- Weight: 345g approx

Price Each

Order Code	Product Code	1+	3+
WX60909	MM44	£65.00	£62.40

EXTECH EX470



EXTECH

INSTRUMENTS

A FLIR COMPANY

- Built-in IR Thermometer with laser pointer
- True RMS
- Capacitance, Frequency and temperature
- 0.3% basic accuracy
- 1000VDC/750AC Voltage ranges
- 20A AC/DC Current ranges

Price Each

Order Code	Product Code	1+	4+
WX60910	EX470	£112.00	£106.54

EXTECH EX205T TRMS Autoranging Multimeter



EXTECH

INSTRUMENTS

A FLIR COMPANY

NEW

- True RMS for better accuracy when measuring distorted waveforms
- 2000 count large backlit dual LCD with easy-to-read digits
- Low current capability with resolution to 0.1µA
- Input fuse protection
- Max Hold, Data Hold and Auto power off
- Complete with test leads and 9V battery

Specifications Range Max Resolution

AC Voltage	600V	0.1mV
DC Voltage	600V	0.1mV
Basic Accuracy	(VDC) ±0.5%	
AC Current	10A	0.1µA
DC Current	10A	0.1µA
Resistance	20MΩ	0.1Ω
IR Temperature (EX210T only)	-5 to 446°F / -20 to 230°C	0.1°
Continuity / Diode	Yes	
Dimensions	5.8x2.9x1.6" (147x76x42mm)	
Weight	9.17oz (260g)	

Price Each

Order Code	Product Code	1+	4+
WX60910	EX205T	£55.00	£51.95

Amprobe 15XP Digital Multimeter

- Auto-ranging / Manual range hold
- 2000 Count, 3½ digits, 0.5% basic accuracy
- 750 Vac / 1000 Vdc
- AC / DC, resistance
- Built-in non-contact voltage detector (audible and visual indicators)
- Continuity, Diode test, Data Hold
- TTL logic test
- Auto Power Off
- Overload protection / Input warning
- CAT I 1000V, II 600V, CAT III 300V rated
- Included with Instrument: test leads, 9V battery (installed), Magne-Grip TM holster, magnet hanging strap and operating instructions

Price Each

Order Code	Product Code	1+	4+
WX38657	15XP-B	15XP-B Meter	£56.00

Amprobe 5XP Digital Multimeter

- The 5XP-A Digital Multimeter provides superior features and accuracy in a smaller form factor
- The 5XP has unique features such as VoTect non-contact voltage (NCV) detection and our exclusive Magne-Grip holster that frees both hands for work
- 10 functions/ 27 ranges
- 2000 Count, 3½ digits, 1% basic accuracy
- 750 Vac / 1000 Vdc
- AC / DC, resistance
- Built-in non-contact voltage detector (audible and visual indicators)
- Continuity, Diode test, Data Hold
- Min-Max recording, Data Hold
- Battery test
- Overload protection / Input warning
- CAT I 1000V, II 600V, CAT III 300V rated
- Included with Instrument: test leads, 9V battery (installed), Magne-Grip TM holster with magnet hanging strap and operating instructions

Price Each

Order Code	Product Code	1+	4+
WX38658	5XP-A	5XP-A Meter	£36.00

DM73B Digital Test Probe Meter

- Meter with built-in test probe for one-hand operation
- Unique pen shape auto-ranger
- Small and light, goes anywhere
- Allows one-hand operation in tight spots
- 3400-count display with analog bargraph
- Current: 600 V AC/DC
- Data Hold and Auto-Off
- Voltage: 600V AC/DC
- Continuity beeper
- Diode test

Price Each

Order Code	Product Code	1+	4+
WX32040	DM73B	DM73B Meter	£53.00

CB12 Calibration Check Box

- The CB12 calibration checkbox is designed to check the calibration of the continuity and resistance ranges of insulation testers & multimeters, providing a quick check to ensure the instrument being used is giving an accurate reading
- By checking an instrument regularly the user can verify that measurements taken are accurate, within the tolerances of the instrument and the check box
- It is not designed to check loop testers, where the high test current will damage the CB12
- The Calibration Check Box is simple to use, simply connect the instrument under test to the checkbox via the 4mm terminals on the front of the checkbox
- Select a resistance value via the dial on the front of the checkbox. Set the instrument under test to the relevant test range and either check the values or run an insulation test to check the values are within the appropriate limits.

Resistance Settings:

0.5Ω, 1Ω, 2Ω, 20Ω, 200Ω, 1kΩ, 10kΩ, 20kΩ, 100kΩ, 1MΩ, 2MΩ, 10MΩ

Accuracy:

0.5Ω - 2Ω ± 0.025Ω 20Ω - 10MΩ ± 2%

Maximum Voltage Input: 1000V DC

Case: Impact Resistant ABS

Price Each

Order Code	Product Code	1+	3+
WX60911	CB12	£49.50	£47.52

On site technical support and advice available**TL220 SureGrip Industrial Test Lead Kit**

- Test Lead Kit in an all-in-one handy kit that includes the following:
- AC220 SureGrip alligator clip set
- TP220 SureGrip test probe set
- TL222 SureGrip silicone test lead set (right to right)

Price Each

Order Code	Product Code	1+	4+
WX36012	TL220-1	£54.00	£52.50

TL76 All-In-One Test Lead Set

- One pair (red, black) 1.5 metre long silicone test leads with right angle shrouded banana plug
- Lantern tip (removable) for use with European wall sockets (4mm Ø)
- Lantern tip can be removed for easy access to terminal blocks (2mm Ø)
- Removable, insulated IC caps allow probing on closely spaced leads and compliance with GS38
- Cat IV 600 V, CAT III 1000 V, 10 A rating, UL listed

Price Each

Order Code	Product Code	1+	4+
WX36041	TL76	£29.00	£28.19

L215 SureGrip Kit with Probe Light & Extender

- L200 Probe Light
- TP280 20cm Test Probe Extenders
- TP220 SureGrip Test Probes
- TL224 SureGrip Silicon Test Lead Set
- Foldable soft pouch with six pockets and hook-and-loop

Price Each

Order Code	Product Code	1+	4+
WX36036	L215	£63.00	£61.25

**Contact Brammer on 0870 240 2100**



NEW

MARTINDALE
ELECTRIC

- Red & black unfused test leads with lantern tips & probe caps supplied with crocodile clips and shrouded tip, terminated with 4mm banana plug
- Double insulated PVC lead
- Suitable for general purpose use.

Price Each

Order Code	Product Code	1+	3+
WX60913	TL45	Right Angle Fixed Shroud	£22.46 £21.56
WX60914	TL47	Straight Fixed Shroud	£22.46 £21.56

Clamp Meters

374 and 375 True-RMS AC/DC Clamp Meters



FLUKE

- Work horse clamps with increased performance and flexibility
- The new Fluke 374 and 375 clamp meters offer improved performance perfect for many current measurement situations
- With True-RMS ac voltage and current measurements, the Fluke 374 and 375 can read up to 600 V and 600 A in both ac and dc modes
- Additionally, both are compatible with the new iFlex™ flexible current probe (sold separately) which expands the measurement range to 2500 A ac and provides increased display flexibility, ability to measure around awkward sized conductors and improved wire access
- iFlex™ flexible current probe expands the measurement range to 2500 A ac while providing increased display flexibility, ability to measure around awkward sized conductors and improved wire access
- CAT IV 600V, CAT III 1000V safety rating
- Integrated low pass filter (Fluke 375 only) and state of the art signal processing allows for use in noisy electrical environments while providing stable readings
- Proprietary inrush measurement technology to filter out noise and capture motor starting current exactly as the circuit protection sees it
- Ergonomic design fits in your hand and can be used while wearing personal protective equipment
- Large, easy to read, backlight display automatically sets the correct measurement range so you do not need to change switch positions while taking a measurement
- Three-year warranty
- Soft carrying case
- Other joint features for both 374 and 375 include:
 - True-RMS
 - Continuity
 - Hold
 - Backlight
 - Min/Max
 - Inrush
- Low pass filter only with Fluke 375
- 45 cm (18 inch) iFlex™ and 25 cm (10 inch) iFlex™ flexible current probes as optional accessory
- 34mm Wire capacity

Fluke 374 and 375 Range	Max Resolution	Accuracy
AC current via jaw 600 A	0.1 A	2 % ± 5 digits
AC current via iFlex™ (optional) 2500 A	0.1 A	3 % ± 5 digits
DC current 600 A	0.1 A	2 % ± 5 digits
AC voltage 600 V	0.1 V	1.5 % ± 5 digits
DC voltage 600 V	0.1 mV (375) 0.1 V (374)	1 % ± 5 digits
Resistance 60,000 Ω (375) 6000 Ω (374)	0.1 Ω	1 % ± 5 digits
Frequency (375 only) 500 Hz	0.1 Hz	0.5 % ± 5 digits
Capacitance 1 µF to 1000 µF	1 µF	1 % ± 4 digits

Price Each

Order Code	Product Code	1+	4+
WX53589	374	374 True-RMS AC/DC	£265.00 £257.64
WX53590	375	375 True-RMS AC/DC	£317.00 £308.19
WX53591	I2500-10	i2500-10 iFlex Current Probe 25 cm	£89.00 £86.53
WX53592	I2500-18	i2500-18 iFlex Current Probe 45 cm	£89.00 £86.53

376 True-RMS AC/DC Clamp Meter with iFlex™



FLUKE

- The new Fluke 376 Clamp Meter offers improved performance perfect for a wide range of current measurement situations
- With True-RMS ac voltage and current measurements, the Fluke 376 can read up to 1000 V and 1000 A in both ac and dc modes
- Additionally, the Fluke 376 includes the new iFlex™ flexible current probe expanding the measurement range to 2500 A ac while providing increased display flexibility, ability to measure around awkward sized conductors and improved wire access
- The Fluke 376 is the direct replacement for the Fluke 337 Clamp Meter
- CAT IV 600 V, CAT III 1000 V safety rating
- Integrated low pass filter and state of the art signal processing allows for use in noisy electrical environments while providing stable readings
- Proprietary inrush measurement technology to filter out noise and capture motor starting current exactly as the circuit protection sees it
- Ergonomic design fits in your hand and can be used while wearing personal protective equipment
- Large, easy to read, backlight display automatically sets the correct measurement range so you do not need to change switch positions while taking a measurement
- Three-year warranty
- Soft carrying case
- Other features include:
 - Continuity
 - Hold
 - Backlight
 - Min/Max/Avg
 - Inrush
 - Low pass filter
 - 45 cm (18 inch) iFlex Flexible™ included
 - Current Probe
 - Wire capacity 34mm

Fluke 376 Range	Resolution	Accuracy
AC current via jaw 999.9 A	0.1 A	2 % ± 5 digits
AC current via iFlex™ 2500 A	0.1 A	3 % ± 5 digits
DC current 999.9 A	0.1 A	2 % ± 5 digits
AC voltage 1000 V	0.1 V	1.5 % ± 5 digits
DC voltage 1000 V	0.1 mV	1 % ± 5 digits
Resistance 60,000 Ω	0.1 Ω	1 % ± 5 digits
Frequency 500 Hz	0.1 Hz	0.5 % ± 5 digits
Capacitance 1000 µF	1 µF	1 % ± 4 digits

Price Each

Order Code	Product Code	1+	4+
WX53593	FLUKE-376	376	£379.00 £368.47
WX53591	FLUKE-I2500-10	i2500-10 iFlex Current Probe 25 cm	£89.00 £86.53

We provide access to technical expertise through your local Sales and Service Centre and authorised suppliers

381 Remote Display True-RMSAC/DC Clamp Meter



FLUKE

- The first clamp meter with a detachable, remote display for easier, faster, safer measurements
 - Wireless technology allows the display to be carried up to 10 m away from the point of measurement for added flexibility without interference with measurement accuracy
 - iFlex™ flexible current probe expands the measurement range to 2500 A ac while providing increased display flexibility, ability to measure awkward sized conductors and improved wire access
 - CAT IV 600V, CAT III 1000 V safety rating
 - Integrated low pass filter and state of the art signal processing allows for use in noisy electrical environments while providing stable readings
 - Proprietary inrush measurement technology to filter out noise and capture motor starting current exactly as the circuit protection sees it
 - Ergonomic design fits in your hand and can be used while wearing personal protective equipment
 - The removable magnetic display can be conveniently mounted where it is easily seen
 - Radio transmitter automatically turns off when the display is connected to the meter
 - Large, easy to read, backlight display automatically sets the correct measurement range so you do not need to change switch positions while taking a measurement
 - Three-year warranty
 - Soft carrying case
 - Other features include:
 - True-RMS
 - Continuity
 - Hold
 - Backlight
 - Min/Max
 - Inrush
 - Low pass filter
 - Removable wireless display
- 45 cm (18 inch) iFlex™ Flexible Current Probe included
25 cm (10 inch) iFlex™ Flexible Current Probe as accessory required
Wire capacity is 34mm

Fluke 381	Range	Resolution	Accuracy
AC current via jaw	999.9 A	0.1 A	2 % \pm 5 digits
AC current via iFlex™	2500 A	0.1 A	3 % \pm 5 digits
DC current	999.9 A	0.1 A	2 % \pm 5 digits
AC voltage	1000 V	0.1 V	1.5 % \pm 5 digits
DC voltage	1000 V	0.1 V	1 % \pm 5 digits
Resistance	60,000 Ω	0.1 Ω	1 % \pm 5 digits
Frequency	500 Hz	0.1 Hz	0.5 % \pm 5 digits

Order Code	Product Code	1+	4+
WX35394	381	£444.00	£431.67

Fork Clamp/Multimeter



Megger

- The Megger DCM330 Fork Multimeter is a convenient, compact instrument designed to measure ac current up to 200 A, and additionally perform all the functions of a basic multimeter
- 200.0 A a.c. open-jaw current measurement
- 0.1 V to 1000 V auto-ranging a.c. and d.c. voltage measurement
- 0.1 Ω to 20.0 Ω resistance range
- Continuity buzzer
- Diode check
- Non-contact detection of a.c. voltage

Price Each

Order Code	Product Code	1+	4+
WX53603	DCM330	£106.69	£103.36

Fluke Clamp Meter



FLUKE

NEW

- 400 A ac current measurement
- 600 V ac and dc voltage measurement
- True-rms ac voltage and current for accurate measurements on non-linear signals
- Resistance measurement up to 4000 Ω with continuity detection (325 40k Ω)
- Slim, ergonomic design
- CAT IV 300 V/CAT III 600 V safety rating
- Hold button
- Two-year warranty
- Soft carrying case

Price Each

Order Code	Product Code	Description	1+	4+
WX38633	323	Clamp Meter	£99.00	£95.81
WX60915	324	Clamp Meter	£118.00	£114.19
WX60916	325	Clamp Meter	£159.00	£153.87

Specification	323	324	325
AC Current range	400.0A	40.00A/400.0A	40.00A/400.0A
DC Current range	-	-	40.00A/400.0A
Continuity	$\leq 70\Omega$	$\leq 30\Omega$	$\leq 30\Omega$
Capacitance	-	100.0 μ F to 1000 μ F	100.0 μ F to 1000 μ F
Frequency			5.0 Hz to 500.0 Hz
Backlight	-	Yes	Yes
Contract temperature	-	-10°C to 400.0°C (14.0°F to 752.0°F)	-10°C to 400.0°C (14.0°F to 752.0°F)
Min/Max	-	-	Yes
Weight	265g	208g	283g

CM54 1000A AC Clamp Meter



MARTINDALE

NEW

- The Martindale CM54 is a low cost 1000A AC clamp meter, with basic multimeter functions
- It has a large jaw diameter at 57mm, capable of clamping round a 70 x 18mm busbar.
- Along with AC current, this clamp meter will also measure AC & DC volts, resistance, continuity, and includes Max & Hold buttons.
- The Martindale CM54 is supplied with standard test leads, carry case and battery.
- Display: 3 1/2 digit LCD with large 21mm digits
- AC Voltage: 1V to 750V (50Hz to 500Hz), Accuracy: +/- 1.5% + 4 digits
- DC Voltage: 1V to 1000V, Accuracy: +/- 0.5% + 4 digits
- AC Current: 100mA to 1000A (2 ranges), 50 / 60Hz Accuracy: 0 - 600A +/- 1.5% + 5 digits; >600A +/- 2.0% + 5 digits
- Resistance Ranges: 200 Ω , 20k Ω , 20M Ω , 2000M Ω Resolution: 0.1 Ω on 200 Ω range
- Accuracy Ranges
 - 200 Ω : +/- 1.2% + 4 digits
 - 20k Ω : +/- 1.0% + 3 digits
 - 20M Ω : +/- 2.0% + 5 digits
 - 2000M Ω : +/- 5% + 10 digits
- Continuity: Buzz at <75 Ω
- Dimensions: 277 x 102 x 49mm
- Weight: 540g approx

Price Each

Order Code	Product Code	1+	3+
WX60917	CM54	£91.67	£88.00

We can supply
the entire
range. If you
can't see it
here, just call
0870 240 2100

CM56 1000A AC/DC Voltage Clamp Meter



MARTINDALE

NEW

- The Martindale CM56 1000A AC clamp meter is ideal for general purpose use
- It includes basic multimeter functions and features a large LCD display with analogue bar graph
- Adding to the features of the CM54, this clamp meter gives you AC & DC voltage, resistance, continuity and frequency
- The jaw diameter is 57mm, and can be clamped around a 70 x 18mm busbar
- Max hold and AC peak functions complete the great features of this clamp.
- The Martindale CM56 is supplied with standard test leads, instruction manual, soft carry case and battery.
- Display: 3 1/2 digit LCD with bargraph
- AC Voltage: 1mV to 750V autoranging, 50Hz to 300Hz, Accuracy: +/- 1.5% + 4 digits
- DC Voltage: 0.1mV to 1000V (5 ranges), Accuracy: +/- 0.5% + 1 digit
- AC Current: 10mA to 1000A (3 ranges), 50 - 400Hz Accuracy: 0 - 600A +/- 1.5% + 5 digits; >600A +/- 2.0% + 5 digits
- Resistance Ranges: 320Ω, 3.2kΩ, 32kΩ, 320kΩ, 3.2MΩ, 30MΩ Resolution: 0.1Ω on 320Ω range
- Accuracy Ranges 320Ω to 320kΩ: +/- 1.0% + 3 digits 3.2MΩ: +/- 1.5% + 3 digits 30MΩ: +/- 2.5% + 5 digits
- Continuity: Buzz at <20Ω
- Frequency: 0.1Hz - 32kHz (3 ranges)
- Diode Test
- Dimensions: 277 x 102 x 49mm
- Weight: 540g approx

Price Each

Order Code	Product Code	1+	3+
WX60918	CM56	£112.27	£107.78



For Lockouts and Tagouts, see our Site Safety section

CM58 1000A AC/DC True RMS Clamp Meter



MARTINDALE

NEW

- Representing outstanding value for money, this clamp is feature packed measuring AC & DC volts, resistance, frequency & continuity as well as a diode test
- The large 3 1/2 digit LCD display has a 42 segment analogue bar graph, giving better resolution of changing readings
- Additional features include Max & Min reading memories, along with Peak & Hold
- The clamp is autoranging as standard, but has a manual range change / hold for optional override of the autorange function.
- The Martindale CM58 is supplied with standard test leads, soft carry case, battery and instruction manual.
- AC Voltage: 0.1mV to 750V autoranging, 50Hz to 500Hz (5 ranges), Accuracy: +/- 1.5% + 4 digits
- DC Voltage: 0.1μV to 1000V autoranging (5 ranges), Accuracy: +/- 0.5% + 1 digit
- AC Current: 100mA to 1000A (2 ranges), true-RMS, 50 - 400Hz Accuracy: 0 - 600A +/- 1.5% + 5 digits; >600A +/- 2.0% + 5 digits
- DC Current: 100mA to 1000A (2 ranges) Accuracy: 0 - 600A +/- 1.5% + 5 digits; 600 - 800A +/- 2.5% reading +/- 5 digits; >800A +/- 3.5% + 5 digits
- Resistance Ranges: 100mΩ to 40MΩ (6 ranges)
- Capacitance: 1pF to 40μF, autoranging (5 ranges)
- Continuity: Buzz at <40Ω
- Frequency: 0.1Hz - 400kHz, autoranging (5 ranges)
- Max Conductor: 57mm Ø or 70 x 18mm bus bar
- Diode Test
- Dimensions: 277 x 102 x 49mm
- Weight: 540g approx

Price Each

Order Code	Product Code	1+	3+
WX60919	CM58	£189.00	£181.44

AD40B Clamp Meter



AMPROBE

- Compact Clamp Meter measures up to 400A AC in tight spaces
- Measures low AC current in 40A range
- Auto-ranging, 400A range
- 10mA resolution in 40A range
- 4000-count display with bargraph
- Autoranging
- Data Hold and Auto-Off
- CAT III 600V rated

Price Each

Order Code	Product Code	1+	4+
WX32039	AD40A	£68.00	£65.81



EXTECH

- Built-in dual thermocouple inputs
- Built-in non-contact voltage detector
- InfraRed thermometer
- DC μA multimeter function
- True RMS
- 40,000 count
- DC current
- Dual Type K & IR temperature
- Capacitance & Frequency
- Jaw size 1.4"

Function

Display count	40000
ACA accuracy	1.5%
AC/DC Current	400A
AC Voltage	600V
DC Voltage	600V
DC μA current	4000μA
Resistance	40MΩ
Frequency	40MHz
Capacitance	40,000μF
Temperature (type K)	-58 to 1832°F - Dual Inputs
Temperature (infrared)	-58 to 518°F

Price Each

Order Code	Product Code	1+	4+
WX43944	EX623	£178.00	£169.80

AC75 Clamp Meter



AMPROBE

- Three tools in one: Clamp Meter, Multimeter, Thermometer
- 600Amps AC, Special microAmp measurement
- Digital thermometer 750°F, Type K probe included
- 750 Vac / 1000 Vdc
- 40MW resistance
- Capacitance to 4000 μF
- Continuity
- Large backlit display, 4000 Ohm count
- Data Hold
- Auto Power Off
- CAT III 600V, CAT II 1000V safety rated
- Deluxe carry case with belt loop
- Convenient battery door access

Price Each

Order Code	Product Code	1+	4+
WX38659	AC75B	£111.00	£107.42

EXTECH EX830



EXTECH
INSTRUMENTS
A FLIR COMPANY

- This unique model includes built in non-contact InfraRed temperature measurements with laser pointer
- True RMS
- Peak hold captures inrush currents and transients
- Type K temperature
- High resistance, capacitance & frequency ranges
- 1.7" jaw size

Function

AC Current 1000A

DC Current 1000A

AC Voltage 600V

DC Voltage 600 V

Resistance 40MΩ

Capacitance 40mF

Frequency 4kHz

DC Voltage 400.0 V

Temperature (Infrared) -50 to 270°C

Temperature (Type K) -70 to 760°C

Price Each

Order Code	Product Code	1+	4+
WX43946	EX830	£157.00	£149.87

For a full range of hand tools, see our Hand Tools section



Fluke 365 Detachable Jaw True-rms AC/DC Clamp Meter



FLUKE

- The Fluke 365 is a new, innovative Fluke clamp meter, offering a thin, small jaw design that makes it easy to get around tightly packed wires
- 200 A ac and dc current measurement with detachable jaw
- 600 V ac and dc voltage measurement
- Detachable jaw makes accessing wires and viewing the display easier
- Built in flashlight/torch allows for easy illumination and identification of wires
- CAT III 600 V
- Compact design fits in your hand and can be used while wearing protective equipment
- State of the art signal processing allows for use in noisy electrical environments while providing stable readings
- Large, easy to read, backlight display automatically sets the correct measurement range so you do not need to change switch positions while taking a measurement
- Three-year warranty
- Soft carrying case
- Safety conformance IEC/EN 61010-1:2001, CAT III 600 V
- Included accessories:
 - Coated instruction card
 - Safety information sheet
 - Soft carrying case
 - TL75 test leads
 - Five AA Alkaline batteries

Fluke 365

Diameter of measurable conductor	0.71" or 18 mm max
Operating temperature	-14 to 122°F (-10 to 50°C)
Storage Temperature	-40 to 140°F (-40 to 60°C)
Operating Humidity	< 90% @ 10 to 30 °C, < 75% @ 30 to 40°C
Operating Altitude	0 to 2000 m
Size	225 x 65 x 46 mm, (8.858 x 2.559 x 1.811 in.)
Temperature Coefficient	0.01% °C (<18°C or > 28°C)
Weight	275g, (10 oz.)
Warranty	Three years

Price Each

Order Code	Product Code	1+	4+
WX53595	365	£199.00	£193.47

AC Leakage Current Tester



NEW

- This 3 1/2 digit AC Leakage Current Tester has a high resolution and a large shield transformer jaw which eliminates the influence of other current conductors and minimises the effects of external magnetic fields allowing you to perform accurate and reliable measurements in crowded electrical environments.
- Ideal for many applications including power system checks and installation.
- 25.1mm display with function indicators
- Large 30mmØ shield transformer jaw
- 5 ranges available: 40mA, 400mA, 4A, 40A & 100A
- Frequency Selector Switch to eliminate the effects of high frequency noise & harmonics when taking AC current measurements
- Bar graph display with a response time of 20 times per second for transient observation
- Max/Min and Data Hold
- Overload protection for Ohm measurements at 600V
- Manual ranging via single click action rotary switch
- Zero function
- Low Battery Indication
- Auto Power off after 30mins – can be user disabled
- Supplied with test leads, protective rubber boot, hand strap, carrying bag, manual and battery
- Calibration Certificate
 - CAL-LC Traceable Calibration Certificate available
 - UKAS-LC UKAS Calibration Certificate available

Function	Range	Resolution	Accuracy
			50/60Hz 40/1KHz
AC Current	40mA	10µA	±1.0%±0.5mA±4.5%±0.5mA
	400mA	100µA	±3.0%±5.0mA±3.0%±5.0mA
	4A	1mA	±4.0%±0.1A ±4.0%±0.1A
	40A	10mA	±4.0%±1.0A ±4.0%±1.0A
	80A	100mA	±2.5%±1.0A ±3.0%±1.5A
	80-100A	100mA	±5.0%±1.0A ±5.0%±1.5A

Though this meter can display up to 400A, it is not calibrated beyond 100A

AC Voltage	400V	0.1V	±1.5%±2dgts ±2.0%±4dgts
Resistance	40-400Ω	0.1Ω	±1.0%±2dgts

Continuity Test <38.0Ω (audible alarm)

Power	1 x 9V PP3 Alkaline Battery (LR-61)
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Dimensions	210 x 62 x 35.6mm
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Weight	200g
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Price Each

Order Code	Product Code	1+	4+
WX60920	DT-9809	£76.50	£73.44

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Test & Measurement

Cable Locators

Professional Cable Locator Kit



NEW

- This is a professional general purpose cable locator kit consisting of a transmitter and receiver to detect or trace conductors
- Ideal for many applications including tracing cables in walls/underground, locating fuses/breakers on final circuits and finding interruptions/short circuits in cables and electrical floor heating systems
- Can be used for all applications (both voltage free and live) without the use of other instruments
- Allows conductor tracing in walls and soil
- Transmitter with 2.6mm LCD display for transmitting level, transmitting code & external voltage
- Receiver with 3.7mm LCD display and Backlight for level of receiving signal, code of receiving signal & live voltage indication
- 5 ranges available: 12V, 50V, 120V, 230V & 400V (Transmitter)
- Automatic or manual adjustment of receiving signal sensitivity
- User selectable audible alarm for reception signal
- Built in Flash Light for use in dark environments (Receiver)
- Low Battery Indication
- Auto Power Off after 1hr (Transmitter) after 5mins (Receiver)
- Supplied with transmitter, receiver, crocodile clips, test leads, carrying case, manual & batteries

	Transmitter	Receiver
Voltage Range	12 - 400V	*
Frequency Range	0 - 60Hz	*
Output Signal	125kHz	*
External Voltage Detection	Max. 400V AC/DC *	
Tracing Depth (wall/underground cables)	0 - 2.5m	*
Voltage Detection	0 - 0.4m	*
Electrical Safety	EN 61010-1	*
Overvoltage Category	CAT III 300V	*
Operating Temperature	0 to 40°C	*
Storage Temperature	-20 to 60°C	*
Power	2 x 9V PP3 Alkaline* Batteries (LR-61)	*
Dimensions	130 x 69 x 32mm * 192 x 61 x 37mm	*
Weight	130g 180g	*

Price Each

Order Code	Product Code	1+	4+
WX60921	LA-1012	£225.00	£216.00

Power Loggers/Analysers

Fluke 430 Series II Three-Phase Power Quality and Energy Analyzers



FLUKE NEW

More detailed power quality analysis capability, and a new Fluke-patented energy monetization function

The new 430 Series II Power Quality and Energy Analyzers offer the best in power quality analysis and introduce, for the first time ever, the ability to monetarily quantify energy losses. The new Fluke 434, 435 and 437 Series II models help locate, predict, prevent, and troubleshoot power quality problems in three-phase and single-phase power distribution systems. Additionally, the Fluke-patented energy loss algorithm, Unified Power Measurement, measures and quantifies energy losses due to harmonics and unbalance issues, allowing the user to pinpoint the origin of energy waste within a system.

Energy loss calculator: Classic active and reactive power measurements, unbalance and harmonic power, are quantified to pinpoint true system energy losses in dollars (other local currencies available).

- Power inverter efficiency: Simultaneously measure AC output power and DC input power for power electronics systems using optional DC clamp.
- PowerWave data capture: 435 and 437 Series II analyzers capture fast RMS data, show half-cycle and waveforms to characterize electrical system dynamics (generator start-ups, UPS switching etc.).
- Waveform capture: 435 and 437 Series II models capture 100/120 cycles (50/60Hz) of each event that is detected in all modes, without set-up.
- Automatic Transient Mode: 435 and 437 Series II analyzers capture 200 kHz waveform data on all phases simultaneously up to 6 kV.
- Fully Class-A compliant: 435 and 437 Series II analyzers conduct tests according to the stringent international IEC 61000-4-30 Class-A standard.
- Mains signaling: 435 and 437 Series II analyzers measure interference from ripple control signals at specific frequencies.
- 400 Hz measurement: 437 Series II analyzer captures power quality measurements for avionic and military power systems.
- Troubleshoot real-time: Analyze the trends using the cursors and zoom tools.
- Highest safety rating in the industry: 600 V CAT IV/1000 V CAT III rated for use at the service entrance.
- Measure all three phases and neutral: With included four flexible current probes with enhanced thin flex designed to fit into the tightest places.
- Automatic Trending: Every measurement is always automatically recorded, without any set-up.
- System-Monitor: Ten power quality parameters on one screen according to EN50160 power quality standard.
- Logger function: Configure for any test condition with memory for up to 600 parameters at user defined intervals.
- View graphs and generate reports: With included analysis software.
- Battery life: Seven hours operating time per charge on Li-ion battery pack.

Unified Power Measurement

Fluke's patented Unified Power Measurement system (UPM) provides the most comprehensive view of power available, measuring:

- Parameters of Classical Power (Steinmetz 1897) and IEEE 1459-2000 Power
- Detailed Loss Analysis
- Unbalance Analysis

These UPM calculations are used to quantify the fiscal cost of energy loss caused by power quality issues. The calculations are computed, along with other facility-specific information, by an Energy Loss Calculator that ultimately determines how much money a facility loses due to wasted energy.

Energy savings

Traditionally energy savings are achieved by monitoring and targeting, or in other words, by finding the major loads in a facility and optimizing their operation. The cost of power quality could only be quantified in terms of downtime caused by lost production and damage to electrical equipment. The Unified Power Measurement (UPM) method now goes beyond this to achieve energy savings by discovering the energy waste caused by power quality issues. Using the Unified Power Measurement, Fluke's Energy Loss Calculator (see screen shot below) will determine how much money a facility is losing due to waste energy.

Unbalance

UPM gives a more comprehensive breakdown of the energy consumed in the plant. In addition to measuring reactive power (caused by poor power factor), UPM also measures the energy waste caused by unbalance; the effect of unevenly loading each phase in three-phase systems. Unbalance can often be corrected by reconnecting loads on different phases to ensure the current drawn on each phase is as equal as possible. Unbalance can also be corrected by installing an unbalance reactance device (or filter), that will minimize the effects. Correcting unbalance should be basic good housekeeping in the facility as unbalance problems can cause motor failure or shorten equipment life expectancy. Unbalance also wastes energy. Using UPM can minimize or eliminate that energy waste, thus saving money.

Harmonics

UPM also provides details of the energy wasted in your facility due to the presence of harmonics. Harmonics may be present in your facility due to the loads you operate or may be caused by loads in adjacent facilities. The presence of harmonics in your facility can lead to:

- overheating transformers and conductors
- nuisance tripping of circuit breakers
- early failures of electrical equipment

Quantifying the cost of wasted energy due to the presence of harmonics simplifies the return-on-investment calculation needed to justify purchasing harmonic filters. By installing a harmonic filter the ill effects of harmonics can be reduced and energy waste eliminated, resulting in lower operational costs and more reliable operation.

Please contact local Brammer Branch or your Field Sales Representative for more details.

Price Each

Order Code	Product Code	1+	1+
WX60922	434II	POA	
WX60923	435II	POA	
WX60924	437II	POA	

‡ Special delivery applies. Please ask for details

On site technical support and advice available



Fluke 1735



FLUKE

The Fluke 1735 Power Logger is the ideal electrician or technician's tool for conducting energy studies and basic power quality logging. Set the 1735 up in seconds with the included flexible current probes and color display. The 1735 logs most electrical power parameters, harmonics and captures voltage events.

- Record power and associated parameters for up to 45 days
- Monitor maximum power demand over user-defined averaging periods
- Prove the benefit of efficiency improvements with energy consumption tests
- Measure harmonic distortion caused by electronic loads
- Improve reliability by capturing voltage dips and swells from load switching
- Easily confirm instrument setup with color display of waveforms and trends
- Measure all three phases and neutral with included 4 flexible current probes
- View graphs and generate reports with included Power Log software
- Compact, rugged design with IP65 case, 600 V CAT III and 2-year warranty
- Included with the 1735
 - Soft carrying case
 - 4 flexible current probes (15 A/150 A/3000 A)
 - Power Log software
 - Voltage leads and clips
 - Color localization set
 - PC interface cable
 - Universal AC adapter
 - Printed English manual
 - Multi-language manual CD

Features

Oscilloscope mode
Two modes: Six channels simultaneously - three voltages and three currents)

Two channels voltage and current on a single phase

Harmonics

Voltage and current harmonics to the 40th as a bar graph
Detailed information for each harmonic
Total harmonic distortion (V and I)
Harmonics recording 1 second to 900 s (minimum, maximum and average values)

Power and Energy

Measurements of:
Active power (W), apparent power (VA), reactive power (VAR),
distortion power (D)
Power factor and cos φ
Active and reactive energy
Recording averages 1 second to 900 s (minimum, maximum and average values)

Events

Detections of voltage dips, swells and interruptions
Triggering based on half-cycle RMS values

Memory

Store up to 50 screenshots
Recordings stored as a six screen summary for immediate viewing
Recording consist of up to 1440 intervals
Measured values are down loaded via RS-232 port with PQLogView software

Price Each

Order Code	Product Code	1+
WX53596	1735	£2,258.00

Electrical Technician Kit

Electrical Kit



EXTECH INSTRUMENTS A FLIR COMPANY

- The ideal kit to meets plant maintenance, HVAC or electrical technician's needs
- Contents include:
 - Non-contact IR Thermometer allows quick surface temperature measurement
 - EX430 True RMS MultiMeter
 - MA200 400A Clamp Meter
 - 42510 IR Thermometer
 - 40130 Non-Contact Voltage Detector
 - Supplied in an attractive hard carrying case

Price Each

Order Code	Product Code	1+	5+
WX43947	TK430-IR	£200.00	£190.60

PAT Testers

Fluke 6500



FLUKE

The Fluke 6500 PAT tester verifies the electrical safety and operation of portable appliances in accordance with relevant guidelines and regulations. With powerful auto test capabilities and with simplified controls, increases the number of tests you can perform per day without compromising results. Performs the tests required for class I and class II appliances.

- Fluke simplifies portable appliance testing
- Compact and lightweight
- Efficient to work with and easy to carry around and has extra space in the hard case for accessories
- One touch simplicity
- Pre-set and user-definable test routines are initiated from a single button – to speed up test procedures and save you time on site
- A better way of working
- Rapid data entry is via a QWERTY keyboard (or optional Fluke barcode scanner) and fast data transfer from the main memory or the Compact Flash memory card

Price Each

Order Code	Product Code	1+	4+
WX41987	6500	£1,185.00	£1,146.77

HPAT500 Handheld Portable Appliance Tester



MARTINDALE

NEW

- Lightweight hand-held battery powered PAT tester for use where there is no convenient power socket
- It's easy to use and reliable, with a simple one button, one test sequence selection, displays measured values as well as a "pass" or "fail" decision and comes complete with a mains charger
- Tests both 240V & 110V appliances
- User functions include:
 - Class I, Class II and power lead tests
 - Insulation Test at 500V
 - 200mA DC continuity test, with two pass levels
 - Displays measured values and PASS or FAIL result
- Dimensions: 90 x 210 x 54mm
- Weight: Approx 700g (including batteries and leads)
- Includes: carry case, manual, rechargeable batteries, mains charger, mains lead, IEC lead, earth bond probe (TL67)

Price Each

Order Code	Product Code	1+	3+
WX60925	HPAT500	£409.00	£392.64



Personal protection equipment, see our Personal Protection Equipment section

HPAT600 Handheld Portable Appliance Tester



MARTINDALE

NEW

- Lightweight hand-held battery powered PAT tester
- The HPAT600 is crammed with features such as dual insulation test voltages, user selectable pass levels, easy or fast operating mode, IEC lead test and test data storage for up to 200 appliances - equivalent to a whole day's testing. This data can be scrolled through to verify testing has been correctly done, but cannot be downloaded
- The HPAT600 can be operated in easy (manual) or fast (automatic) mode. In manual mode, aimed at the newcomer to PAT testing, a connection diagram for the selected test type is shown on the display and each step of a test requires user confirmation by a press of the OK button. In automatic mode, the HPAT600 will routinely run through a selected test sequence, needing only one button press, without any further user interaction unless a failure is encountered.
- Speeds up PAT testing
- Simple one button, one test sequence selection
- Select your own pass levels to increase flexibility
- Displays measured values and PASS or FAIL result
- Supplied with both mains and car chargers
- 250V / 500V Insulation Test (250V option for filtered PSUs & sensitive IT equipment)
- Complies with the new IEE Code of Practice
- 200mA Earth Bond Test - IT Safe
- Tests both 240V & 110V appliances
- Memory: 200 tests can be stored
- Overload protection: 300V AC/DC
- Protection Class: IP20
- Safety: Complies to BS EN 61010
- Temperature Range: -10 to 40°C, noncondensing
- Power supply: 6 x 1.2V AA NiMH rechargeable batteries 1800mAh or greater
- Dimensions: 90 x 210 x 54mm
- Weight: Approx 700g (including batteries and leads)
- Includes: carry case, manual, rechargeable batteries, mains charger, mains lead, IEC lead, earth bond probe (TL67), in-car charger, earth null adaptor

200mA Earth Bond Test - IT Safe

Price Each

Order Code	Product Code	1+	3+
WX60926	HPAT600	£499.00	£479.04

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PATREG Portable Appliance Register



To be maintained and retained as evidence of compliance with the requirements of the Electricity at Work Regulations 1989

Organisation & Address

NEW

MARTINDALE

- This handy A5 register allows you to keep manual records of PAT testing results to ensure your system is fully compliant

Price Each

Order Code	Product Code	1+	3+
WX60927	PATREG	£9.18	£8.81

HPAT500KIT1 Basic PAT Tester Kit



MARTINDALE

NEW

- This value for money kit provides all you need for basic PAT testing with pass and fail labels, record book to record results and two additional handy tools, a socket tester and non-contact voltage detector
- Lightweight hand-held battery powered PAT tester
- Simple one button, one test sequence selection
- Displays measured values & PASS or FAIL decision
- 200mA Earth Bond Test - IT Safe
- Tests both 240V & 110V appliances
- Kit Includes: HPAT500 tester, CP501 Check Plug, VT2 Voltage Indicator, Pass labels (500), Fail labels (100), PAT register booklet, Batteries, 230V Extension lead adaptor (EX332), Mains charger (PSUHAT230), Null pin on key fob (TL178)

Price Each

Order Code	Product Code	1+	3+
WX60928	HPAT500KIT1	£489.00	£469.44

HPAT600KIT1 Advanced PAT Tester Kit



MARTINDALE

NEW

- This advanced PAT testing kit includes the HPAT600 as well as pass and fails labels and a record book
- Lightweight hand-held battery powered PAT tester
- Simple one button, one test sequence selection
- Displays measured values & PASS or FAIL decision
- 200mA Earth Bond Test - IT Safe
- User adjustable pass limits
- 250V / 500V Insulation Tes
- Tests both 240V & 110V appliances
- It also includes a socket tester and a non-contact voltage indicator
- Kit Includes: HPAT600 tester, CP501 Check Plug, VT2 Voltage Indicator, Pass labels (500), Fail labels (100), PAT register booklet, Batteries, 230V Extension lead adaptor (EX332), Mains charger (PSUHAT230), Null pin on key fob (TL178)

Price Each

Order Code	Product Code	1+	3+
WX60929	HPAT600KIT1	£589.00	£565.44

LAB1 PAT Testing Pass Labels



MARTINDALE

NEW

- Roll of 500 small PASS labels (30 x 20mm)
- Suitable for plug tops and small appliances

Price Per Roll 500

Order Code	Product Code	1+	3+
WX60930	LAB1	£13.67	£13.12

FAIL1 PAT Testing Fail Labels



MARTINDALE

NEW

- The fail labels are essential to prevent re-use of unsafe equipment which has failed a PAT test. Available in rolls of 100 (60 x 30mm)

Price Per Roll 100

Order Code	Product Code	1+	3+
WX60931	FAIL1	£5.47	£5.25

Electrical Test Equipment

Fluke 1507 and 1503 Insulation Testers



FLUKE



- The Fluke 1507 and 1503 Insulation Testers are compact, rugged, reliable, and easy to use
 - With their multiple test voltages, they are ideal for many troubleshooting, commissioning, and preventative maintenance applications
 - Additional features on the tools save both time and money when performing tests
 - They offer great performance for an exceptional value!
 - Insulation test range: (1507: 0.01MO to 10GO), (1503: 0.1MO to 2000MO)
 - Insulation test voltages: (1507: 50V, 100V, 250V, 500V, 1000V), (1503: 500V, 1000V) for many applications
 - Automatic calculation of Polarization Index and Dielectric Absorption Ratio saves both time and money (1507 only)
 - Compare (Pass/Fail) function makes repetitive tests simple and easy (1507 only)
 - Remote test probe makes repetitive or hard-to-reach testing easier
 - Live circuit detection prevents insulation test if voltage >30V is detected for added user protection
 - Auto-discharge of capacitive voltage for added user protection
 - AC/DC voltage: 0.1V to 600V
 - 200mA Continuity
 - Resistance : 0.01Ohm to 20.00KOhm
 - Auto power off to save battery power
 - Large, backlit display for easy readability
 - CAT III - 1000V, CAT IV - 600V over voltage category rating for added user protection
 - Included accessories: Remote probe, test leads and probes, alligator clips
- (Image shown is the 1507 model)

Price Each

Order Code	Product Code	1+	4+
WX38629	1507	£380.00	£367.44
WX38628	1503	£278.00	£269.03

Insulation Resistance Testers 1555/1550C



FLUKE

Digital insulation testing up to 10kV

The new 1555 and redesigned Fluke 1550C insulation resistance testers, offer users digital insulation testing up to 10kV for testing a wide range of high voltage equipment including switchgear, motors, generators and cables.

With these new insulation testers, customers can now conduct the entire range of test voltages specified in IEEE 43-2000 with a best in class, 3 year warranty and CAT IV 600 V safety rating. With measurement storage and PC interface, the 1555 and 1550C are perfect tools for preventive or predictive maintenance programs designed to identify potential equipment failures before they occur.

- Features and Benefits:
- Test voltages up to 10 kV provides solutions for all applications
- CAT III 1000 V, CAT IV 600 V safety rating
- Voltage breakdown detection alerts the user that voltage is present and gives the voltage reading up to 600 V ac or dc for increased user safety
- Selectable test voltages in 50 V steps from 250 to 1000 V, and 100 V steps above 1000 V
- Measurements can be stored in up to 99 memory locations, with each location assigned a unique, user defined, label for easy recall
- Long battery life gives the user over 500 tests between charges for the 1555 and 1000 tests for the 1550C
- Automatic calculation of Dielectric Absorption (DAR) and Polarization Index (PI) with no additional setup
- Guard system eliminates the effect of surface leakage current on high-resistance measurements
- Large digital/analog LCD for easy viewing
- Capacitance and leakage current measurement
- Ramp function for breakdown testing
- Resistance measurements up to 2TΩ
- Timer settings up to 99 minutes for timed tests
- 3-year warranty
- Included with the Unit

Test cables with alligator clips (red, black, green)
Infrared adapter with interface cable
FlukeView Forms basic CD-ROM
AC power cord
Soft carrying case
Users manual on CD-ROM
Quick Reference card
English manual
USB-IR cable installation guide
FlukeView Forms installation guide
Kit includes: IP67 hard case instead of soft case, heavy duty alligator clips and certificate of calibration

Price Each

Order Code	Product Code	1+
WX53597	FLUKE-1555	£2,883.00
WX53598	FLUKE-1550C	£2,394.00

Multi Function Testers 1652 & 1653



FLUKE

- Learn in minutes, test in seconds
- Highly portable easy to use Multi-function Testers providing the primary electrical test functions as required by BS7671 (IEE wiring regulations)
- Both models feature the following measurement functions:
- Voltage & frequency, wiring polarity, insulation resistance, continuity, loop and line resistance, PFC/PSC short circuit current, RCD tripping time and current, Auto RCD test sequence, test DC sensitive RCD's
- The 1653 also includes phase sequence indicator, earth test and data download.
- Easy operation - Simple user interface via rotary knob
- Measures loop impedance without tripping RCD's
- Slim test probe incorporating test button
- Rugged - withstands 1 metre drop test, compact and lightweight

Price Each

Order Code	Product Code	1+	4+
WX30973	1652C	£947.00	£916.45
WX30974	1653B	£1,159.00	£1,121.61

‡ Special delivery applies. Please call for details

CAT IV Insulation Tester/DMM with Wireless PC Interface



EXTECH
INSTRUMENTS
A FLIR COMPANY

NEW

- Wireless USB interface transmits measurement data to a PC
- Backlit super large triple display
- 125V, 250V, 500V, and 1000V test voltages
- Insulation Resistance from 0.001MOhm to 4000MOhm
- Auto discharge of capacitive voltage
- Lock Power On Function for hands-free operation
- Data Hold, Min/Max, Relative mode, Auto power off
- Complete with USB receiver, Windows® software, test leads & alligator clips, bead wire temperature probe, carrying case and batteries

Price Each

Order Code	Product Code	1+	5+
WX60932	MG302	£273.00	£259.92

Voltage & Continuity Testers

Fluke Two-Pole Tester



FLUKE **NEW** **GT55e**

VOLTAGE/CONTINUITY TESTER WITH LCD, OHMS, SWITCHABLE LOAD - Fluke's new two-pole testers are built with you in mind. They give you the best combination of safety, ease-of-use and fast answers available anywhere.

Specifications	T90	T110	T130	T150
Voltage ac/dc	12 V to 690 V	12 V to 690 V	6 V to 690 V	6 V to 690 V
Continuity	-	0 to 400 kΩ	0 to 400 kΩ	0 to 400 kΩ
Frequency	-	0/40 to 400 Hz	0/40 to 400 Hz	0/40 to 400 Hz
Phase rotation	-	100 V to 690 V	100 V to 690 V	100 V to 690 V
Resistance measurement	-	-	-	Up to 1999 Ω
Response time (< 0.5 s LED indicator)	< 0.5 s	< 0.5 s	< 0.5 s	< 0.5 s
200 k input impedance	Current draw 3.5 mA @ 690V, Current draw 1.15 mA @ 230V	Current draw 3.5 mA @ 690V, Current draw 1.15 mA @ 230V	Current draw 3.5 mA @ 690V, Current draw 1.15 mA @ 230V	Current draw 3.5 mA @ 690V, Current draw 1.15 mA @ 230V
7 k input impedance (With load buttons pressed)	-	Current draw 30 mA @ 230V	Current draw 30 mA @ 230V	Current draw 30 mA @ 230V
Safety rating	CAT II 690V CAT III 690V	CAT III 690V CAT IV 600V	CAT III 690V CAT IV 600V	CAT III 690V CAT IV 600V
IP rating	IP54	IP64	IP64	IP64

Price Each

Order Code	Product Code	1+
WX60933	T90	£30.00
WX60934	T110	£56.00
WX60935	T130	£89.00
WX60936	T150	£109.00

Fluke T5 Voltage and Continuity Tester



FLUKE **GT55e**

- Select volts, Ohms, or current and the tester does the rest
- Check voltage, continuity and current with one compact tool
- Two models 600V and 1000V
- T5 Voltage, continuity & current testers featuring open jaw current measurement
- AC current measurement to 100A
- Resistance measurement to 1000 Ohms
- Safety CAT III 600V(T5-600) and CAT III-1000V(T5-1000)
- Two year warranty
- Model shown is the T5-1000

Price Each

Order Code	Product Code	1+	4+
WX30982	T5-1000	£134.00	£129.68
WX30983	T5-600	£124.00	£120.00

Price Each

Order Code	Product Code	Description	1+	5+
WX45625	52049407	GT-85NE	£110.05	£106.76

GT55e 690V AC/DC LED Voltage Indicator



GREENLEE

- LED display of AC and DC voltages
- Bipolar rotary field testing
- Unipolar phase testing, visual and audible output
- Continuity check, visual and audible output
- Diode test
- Polarity display, loud beeper
- Measuring point illumination for poor lighting conditions
- IP64 splashproof and dust tight
- Limited lifetime warranty
- Voltage range: AC/DC 6 - 690V
- Frequency response: 0 - 65Hz
- Measurement Category: CAT III - 1000V, CAT IV - 600V

Price Each

Order Code	Product Code	1+	5+
WX45624	52049408	GT-55NE	£63.85

GT85e 690V AC/DC LCD Voltage Indicator



GREENLEE

- Display of AC and DC voltages
- True resistance measurement
- LCD display with backlight
- Bipolar rotary field testing

Price Each

Order Code	Product Code	1+	3+
WX60937	VI13700/2	£45.75	£43.92

- Unipolar phase testing
- Visual and audible output
- Continuity check, visual and audible output
- Diode test
- Polarity display
- Loud beeper
- Measuring point illumination for poor lighting conditions
- IP64 splashproof and dust tight
- Limited lifetime warranty
- Voltage range: AC/DC 6 - 690V
- Resistance range: 0 - 2000 Ω
- Frequency response: 0 - 65Hz
- Measurement Category: CAT III - 1000V, CAT IV

Price Each

Order Code	Product Code	Description	1+	5+
WX45625	52049407	GT-85NE	£110.05	£106.76

VI13700/2 Fused Safety Voltage Indicator



MARTINDALE

NEW

- Before doing any electrical work it is essential to be absolutely certain the circuit is dead
- This GS38 compliant voltage indicator rapidly and safely checks for AC and DC voltages in four stages from 50V to 600V
- The bright, LED indicators give clear and immediate display of the voltage level range and polarity Indication
- The tough, moulded case construction combined with heavy duty, double insulated leads which terminate in a lockable and retractable prod sheath and a substantial finger guard, make this a very reliable and safe instrument
- The return lead incorporates an HRC fuse which, together with the retractable test prods, ensures that the unit fully meets all the GS38, M15/4, HSE and EN61010 recommendations.
- Voltage Ranges:
 - AC 0 - 49V none lit
 - 50 - 99V one lit
 - 100 - 199V two lit
 - 200 - 399V three lit
 - 400V+ all lit
 - DC 0 - 74V none lit
 - 75 - 149V one lit
 - 150 - 239V two lit
 - 240 - 559V three lit
 - 560V+ all lit
- Operating temperature: -20°C to 50°C
- Overvoltage: CAT II/600V
- IMPORTANT: Voltage indicators should always be tested with a proving unit or known live source before and after use.

Price Each

Order Code	Product Code	1+	3+
WX60937	VI13700/2	£45.75	£43.92

Voltage Tester



Megger

- The Megger TPT210 voltage tester provides electricians and electrical engineers with voltage indication but has additional functions that make the instrument truly versatile
- AC and DC voltage from 6 to 1000 V
- Continuity up to 500 kΩ (acoustically / optically)
- RCD function test
- Two pole phase sequence indication
- LED display
- CAT IV 1000 V rating
- Display optical 13 LEDs
- Operating panel RCD button, ON/OFF button, D-Hold button
- Voltage 6 - 1000 V AC / DC
- Continuity 0 - 500 kΩ
- Phase indication > 100 V AC
- Switchable load Is ~ 30 mA ED (DT) = 30 sec.
- Operating frequency 0 - 400 Hz
- Torch Ultra bright LED
- Power Supply 2 x 1.5 V batteries type AAA LR03

Price Each

Order Code	Product Code	1+	5+
WX53605	MEGGER-TPT210	£52.84	£51.19

Voltage Tester



Megger

- The Megger TPT220 voltage tester provides electricians and electrical engineers with voltage indication but has additional functions that make the instrument truly versatile
- The TPT220 features an LCD display that provides AC and DC voltage measurement from 6 to 1000 volts, in addition, a continuity / resistance function ranging from 0 to 2 kΩ
- Continuity and voltage measurements greater than 35 V are accompanied by an acoustic sounder
- Although this tester is primarily for testing in electrical installations the unit can be useful for a wide number of applications. The TPT220 can be utilised for testing auto electrical, fire alarm systems and telecom
- AC and DC voltage from 6 to 1000 V
- Resistance / Continuity (acoustically)
- RCD function test
- Two pole phase sequence indication
- LCD display
- CAT IV 1000 V rating
- Display Optical 3 1/2 digit, LCD
- Operating panel RCD button, ON/OFF button, D-Hold button
- Voltage 6 - 1000 V AC / DC 1 V resolution
- Resistance 0 - 2000 Ω
- Continuity 0 - 150 Ω with acoustical signal
- Phase indication > 100 V AC
- Switchable load Is ~ 30 mA ED (DT) = 30 sec.
- Operating frequency 0 - 400 Hz
- Torch Ultra bright LED
- Power Supply 2 x 1.5 V batteries type AAA LR03

Price Each

Order Code	Product Code	1+	5+
WX53606	MEGGER-TPT220	£85.35	£82.69

Proving Unit



Megger

- The Megger MPU690 proving unit provides an alternative portable battery operated voltage source that can verify the correct functioning of a voltage tester.
- The device safely generates a range of voltages from 50 to 690 volts in five steps. At switch on, the unit initially generates 690 volts then after a short period, slowly ramps down through each voltage step until the device switches off.
- The individual voltage steps are indicated by an LED with a power indicator LED that also indicates an exhausted battery.
- The MPU690 features automatic power on when voltage tester probes are inserted into the output terminals, generating a 50 Hz output voltage which simulates the AC mains supply.
- 5 stepped nominal output voltages
- Automatic operation
- High output power suitable for test lamps
- Extended battery life
- Magnetic base
- Rugged case
- Output voltage 50 - 690 volts in five stages: 50 V, 100 V, 230 V, 400, 690 V
- Power output 10 W max.
- Power On / Off Automatic on when probes are inserted into output terminals / auto off
- Indicators 5 LEDs for output voltages plus power LED
- Power supply 6 x AA / LR06 alkaline batteries

Price Each

Order Code	Product Code	1+	5+
WX53607	MPU690	£100.60	£97.45

PD240 Proving Unit



MARTINDALE ELECTRIC

NEW

- The PD240 is a convenient pocket-sized, battery powered proving unit that produces a 240VDC output
- Any device used for voltage detection and for proving dead should be tested before and after use to ensure the safety of the operative
- The PD240 is currently limited to 2mA and is suitable for use with multimeters and other voltage detectors that have an input impedance greater than 120kΩ.
- It has a long battery life and comes complete with a belt clip.
- Output Voltage: 240V DC
- Output Current: 2mA max across 120kΩ, 3.5mA max Short circuit protected
- Battery: 6LR6/MN1604/PP3 (included) Shut-off below 5V
- Body: Flame retardant ABS
- Dimensions: 144 x 63 x 31mm
- Weight: 180g including battery

Price Each

Order Code	Product Code	1+	3+
WX60938	PD240	£57.50	£55.20

PD440 Proving Unit



MARTINDALE ELECTRIC

NEW

- The proving unit produces 440V AC to enable voltage indicators to be fully checked
- This unit is designed for indicators with 230V (single phase) and 415/440V AC (3 phase) detection ranges, such as the Martindale VI13700/2
- The PD440 can also check Drummond and other filament test lamps as its output is sufficient to illuminate the bulbs
- The proving unit is one of the few designs to check indicators with ranges above 250V.
- Output Voltage:
- 230V into a 5kΩ load
- 440V into a 700kΩ load
- Output Loading: > 4kΩ
- Operating Temperature: -10 to 40°C at max. 70% RH
- Batteries: 6 x LR6 (MN1500) 1.5V Alkaline batteries or equivalent (included)
- Dimensions: 143 x 84 x 50mm
- Weight: 270g approx (excl batteries)

Price Each

Order Code	Product Code	1+	3+
WX60939	PD440	£81.52	£78.26

PD690 Proving Unit



MARTINDALE ELECTRIC

NEW

- The Martindale PD690 is a 700V AC proving device, designed to enable voltage indicators to be fully checked, in compliance with Health & Safety recommendations
- Using a voltage indicator without first proving it is working correctly could prove fatal
- This device is designed for indicators with 230V and 415/440V AC detection ranges, such as the Martindale VI13700
- The proving unit is one of the few designs to check indicators with ranges above 250V
- The PD690 can also check Drummond and other filament test lamps as its output is sufficient to illuminate the bulb
- This model is not designed for use with multimeters
- Output Voltage: 700V nominal
- Operating Temperature -10°C to +40°C at max 70% RH
- Battery
- 6 x LR6 / MN1500 1.5V alkaline batteries or equivalent
- Dimensions: 143 x 84 x 50mm
- Weight 400g approx including battery

Price Each

Order Code	Product Code	1+	3+
WX60940	PD690	£89.00	£85.44

230V Volt Stick



CIE-group



- Lightweight, compact and highly visible
- Used to safely check the presence of an AC voltage without disconnection of equipment
- No current flow needed for correct operation
- High powered LED indicator
- Requires 2 AAA alkaline batteries
- Very accurate as optimised for 230V AC
- Approved to IEC 61010-1 & CATIII 1000vAC
- Sensitivity functions @ 4mm distance from 2.5mm² conductor carrying 220v AC

Price Each

Order Code	Product Code	1+	5+
WX30361	VOLTSTICK-230V	£15.40	£14.90
WX60941	VOLTSTICK-230B	£15.40	£14.90

110V Volt Stick



NEW CIE-group



- Volt Stick 110 – Voltage Indicator – an instant tester for safely checking the presence of a 110v AC voltage
- This high sensitivity version of the Volt Stick provides instant, non-contact checking for the presence of AC voltage down to 110v, without making any disconnections in cables, wall sockets, fuses, circuit breakers, junction boxes etc.
- This 110v version is ideal for construction site temporary supplies and, of course, for use in mains testing in the USA.
- APPLICATIONS:
Voltage indicator with safety handguard to avoid unintentional contact with live conductors
Insulated for safe use
Fully approved to IEC 61010-1, CATIII 1000vAC and CE
Voltage Range: 110 ~ 1000v AC
- Sensitivity: Indicator will illuminate at 4mm distance of a 2.5mm conductor carrying 110v
- Response Time: Immediate
- Intrinsically Safe: Yes
- Power Requirements: 2 x Standard AAA alkaline batteries (supplied)
- Relative Humidity: 80% @ 30°C, 50% @ 40°C
- Operating Temperature: -20 ~ +50°C
- Oversupply: CAT III 1000v AC
- Dimensions: 145(L) x 18(Ø) mm
- Weight: 35g (including batteries)

Price Each

Order Code	Product Code	1+	5+
WX60942	VOLTSTICK-110V	£15.40	£14.90

Circuit Breaker with AC Wire Tracer



AMPROBE

- Three testers in one
- Identify circuit breaker to electrical socket
- Trace AC cables in walls
- Sort AC wires in a bundle
- Coded transmission for separation of transmitter signal
- Audible and visual indicators
- Includes sensitivity adjustment for precise tracing and location
- Cable tracing length to 150m nominal
- Cable tracing depth to 38cm
- Two versions: "E" with UK plug and "FGIS" with Euro (shuko) plug
- CAT III 300V rated

Price Each

Order Code	Product Code	1+	5+
WX38660	ECB50A-E	£62.00	£60.00

GT-16 Adjustable Non-Contact Voltage Detector



GREENLEE

- With both a visual and audible signal, the GT-16 can be used for detecting voltage in outlets, lighting fixtures, thermostats, and circuit breakers
- Additionally, the GT-16 is useful for locating breaks in wires and cables
- Changing the GT-16 product sensitivity is as easy as using the thumb dial control on the housing
- Fast, easy, non-contact voltage detection
- Voltage Detection AC 5 – 1000 V
- Frequency 50 – 100 Hz
- Bright LED and audible alarm if voltage is present
- ON/OFF switch for longer battery life
- Comfort grip to ease fatigue
- Convenient pen size fits into pocket or tool pouch
- Easy to replace batteries
- Measurement category CAT IV, 1000 V
- Lifetime limited Warranty
- U.S. Patent D500.799

Price Each

Order Code	Product Code	Description	1+	5+
WX45626	52033580	GT-16	£23.28	£22.58

Volt Stick EX230 & EX110 ATEXApproved



SAGAB



- Locates breaks in cables
- The red indicator in the tip will illuminate on detection of AC voltage simply by applying the tip close to any connection point, or moving it along any insulated cable
- detects blown fuses inside plugs or fuse holders
- Distinguishes between live and neutral wires in both single and three-phase supplies
- Identifies voltage-carrying cables in junction boxes
- Identifies faulty in-line switches
- Locates defective in-series light bulbs
- Intrinsically safe: EEX IIB IIC T4
- Nemko 03ATEX1456
- Nemko 0470
- IECEx NEM07.0001
- Voltage range: 230 ~ 1000v AC for 230V Version
- Voltage range: 110 ~ 1000v AC for 230V Version
- Indicator will illuminate at 4mm distance of a 2.5mm conductor carrying 230v or 110v
- 2 x Standard AAA alkaline batteries (supplied)
- CAT III 1000v AC
- Operating temperature: -20 ~ +50°C for 230V version
- Operating temperature: -20 ~ +40°C for 110V version
- 110V Version has a flat tip

Price Each

Order Code	Product Code	1+	5+
WX53565	VOLTSTICK-EX230	EX rated 230V	£26.63 £25.77
WX60943	VOLTSTICK-EX110	EX rated 110V	£26.63 £25.77

Magnetic Stick



cie-group



- Powerful red light in the tip to indicate presence of a magnetic field
- Easy to use
- The test lamp responds to all kinds of magnetic fields, from alternating current to direct current and permanent magnets
- Test relays with coils and electrically controlled solenoid valves in all types of vehicles and machines
- Test solenoid valves when servicing oil burners
- ATEX approved version available upon request
- Non metallic contact method
- Useful for pneumatic and hydraulic control equipment and other areas where Solenoid Valves are used

Price Each

Order Code	Product Code	1+	8+
WX30360	MT702	£19.25	£18.63

Magnet Stick EX – ATEX Magnetic Field Indicator



cie-group



- Magnet Stick EX – ATEX Magnetic Field Indicator
- The ATEX-Approved version of the Magnet Stick for use in hazardous areas such as chemical plants, oil refineries, offshore rigs and explosive environments. (For features see standard Magnet Stick above)
- The Magnet Stick provides safe and simple checking for the presence of magnetism.

- Upon testing and without metallic contact, the lamp lights immediately where there is a magnetic field (e.g. an activated coil in a solenoid valve). Equipment can be tested without having to switch it off and magnetic coils can often be tested through their protective cover, saving hours of dismantling time. The Magnet Stick responds to all kinds of magnetic fields from alternating or direct current, to permanent magnets. A powerful red light in the tip indicates presence of a magnetic field.

- APPLICATIONS:
Testing operating solenoid valves in pneumatic and hydraulic control equipment
Testing relays with coils and electrically-controlled solenoid valves in all types of vehicles and machines
Testing solenoid valves when servicing oil burners
Fully approved to IECEx 61010-1, CATIII 1000vAC and CE
- Sensitivity: 300 Gauss, (0,3 mT)v
- Response Time: Immediate
- Batteries: 2 x 1,5v AAA (supplied)
- Relative Humidity: 80% @ 30°C, 50% @ 40°C
- Operating Temperature: -20 ~ +50°C
- Oversupply: CAT III 1000v AC
- Dimensions: 145(L) x 18(Ø) mm
- Weight: 35g (including batteries)

Price Each

Order Code	Product Code	Description	1+	8+
WX60944	MAGNETSTICK-EX	ATEX	£30.61	£29.62

VIPD Safety Voltage & Proving Unit



MARTINDALE

NEW

- VI13700/2 Voltage Indicator - Industry Standard voltage indicator, Heavy duty double insulated leads, Fully GS38 compliant, Polarity Indication
- PD440V Proving Device - Designed to prove voltage indicators for use on single & 3 phase supplies
- These 2 units all come together in a unique case which allows you to leave the Proving Unit in the case and allow access via 2 holes in the clear front to insert your Voltage Indicators
- The Voltage Indicators are housed in the reverse of the case keeping both items together in one place

Price Each

Order Code	Product Code	1+	3+
WX60949	VIPD	£135.00	£129.60

Socket Testers



FLUKE

- Range of 3 professional Socket Testers to suit every application
- Clear LED indication of wiring status
- Compact and durable, simple to use
- Audible indicator (SM200 & SM300)
- Bi-Colour LED's (SM300)
- RCD Check 30mA/300mS (SM300)
- Earth volts touch pad (SM300)

Price Each

Order Code	Product Code	1+	4+
WX32379	SM100	£18.39	£17.81
WX32380	SM200	£23.23	£22.50
WX32381	SM300	£35.81	£34.69

Buzz-it check plug with sounder



MARTINDALE

NEW

- The Martindale Buzz-It features an audible indication of the correct wiring status of sockets, making it ideal to use in awkward areas
- Three bright, long-life LEDs also illuminate to show the wiring is correct, therefore if there is no sound and any LEDs are unlit, you know there is a fault
- Faults are easily identified by the pattern of the lit LEDs, detects 28 faults
- With the audible indication, the Buzz-It can also be used as a basic fuse finder, when the correct fuse is pulled the buzzer stops.
- Note: Like all other standard socket testers, the Martindale CP501 will not detect common earth and neutral or earth neutral reversal
- Mains Supply: 200 - 250V (30-70Hz)
- Power Consumption: <1.5W
- Temperature Range: -10°C to 40°C, 60% RH (max)
- Earth Leakage: <5mA
- Overvoltage: CAT II, 300V
- Housing: Flame retardant ABS
- Dimensions: 65 x 65 x 47mm

Price Each

Order Code	Product Code	1+	3+
WX60950	BZ101	£18.98	£18.22

EZ650 E-Ze Check™ Xtra Professional Kit



MARTINDALE

NEW

- The E-Ze Check™ Pro Kit is supplied in a custom designed carry case for convenience
- It has an IEC socket with an interchangeable 3 pin adaptor and TL88 3-way fused leads with croc clips, allowing testing at light fittings, distribution boards and terminals
- The housing allows connection either to an adaptor with a mains plug or one with 3-way flying leads for use on lighting circuits or on bare wires
- Like all other indicators this unit cannot detect common earth and neutral or earth neutral reversal.
- **This unit is an indicator only and is not designed to provide readings for completing certificates.**
- Nominal supply: 230V, 50Hz
- Earth loop impedance span: 0-1.7Ω, 1.7 to 5Ω, 5 to 10Ω, 10 to 100Ω, 100 to 200Ω, 200 to 500Ω
- Earth loop threshold accuracy: ±(10% + 0.3Ω)
- Voltage low indication: <195V
- Voltage high indication: >270V
- Open earth indication: >500Ω
- Power consumption: <1.6W
- Overvoltage: CAT II /300V
- Dimensions: 65 x 65 x 50mm
- Weight: 64g approx.
- Includes: mains lead (EX332 13A) & 3-way fused leads (TL88), Custom designed carry case

Price Each

Order Code	Product Code	1+	3+
WX60951	EZ650	£99.60	£95.62

IN2101 500V Low Cost Insulation Tester



MARTINDALE

NEW

- All units have a large backlit digital display with analogue bargraph
- The 2101 500V insulation tester is amazing value for money
- Features include continuity buzzer, backlight, auto hold
- The output test voltage is automatically displayed during testing
- This guarantees a minimum test voltage of 500V is being applied during the test
- Automatic zero adjust removes the resistance of the leads and the test button can be set to either latching, to give a permanent output or 'press to test'.
- Insulation: 0.200MΩ - 1000MΩ at 500V in 4 ranges with automatic discharge
- Accuracy: ± (3% rdgs + 5 digits)
- Continuity: Range: 0.1Ω - 40Ω Resolution: 0.01Ω
- Short circuit current: >200mA
- Accuracy: ± (3% rdgs + 5 digits)
- Buzzer: <30Ω
- Resistance: 0.1Ω - 1999kΩ
- Accuracy: ± (3% rdgs + 5 digits)
- Voltage range: 600V AC/DC
- Voltage Warning Indicator: >30V
- Accuracy: ± (3% rdgs + 5 digits)
- Backlight, Auto Hold, Auto Zero
- Protection: IP44
- Overvoltage: 600V CAT III
- Complies with: BS EN 61557 & BS 7671 (17th Edition)
- Dimensions: 90 x 210 x 54mm
- Includes: batteries, manual, carry case & test leads (TL47)

Price Each

Order Code	Product Code	1+	3+
WX60952	IN2101	£238.50	£228.96

IN2102 250/500/1000V Insulation Tester



MARTINDALE
ELECTRIC

NEW

- The Martindale IN2102 is a fully specified insulation tester, with 250, 500 & 1000V test ranges, and is ideal unit for both domestic and industrial installers
- The test voltage is indicated on the large backlit LCD display, which includes an analogue arc. Other features include a continuity buzzer, auto hold and an automatic zero adjust which removes the resistance of the leads
- The test button can also be set to either latching, to give a permanent output, or 'press to test'
- The IN2102 is fully compliant with all UK and International standards, including the 17th Edition, and is supplied with unfused test leads with croc clips, batteries, instruction manual and a soft carry case
- Insulation Tests
 - 250V: 4 / 40 / 400 / 1000MΩ
 - 500V: 4 / 40 / 400 / 4000MΩ
 - 1000V: 4 / 40 / 400 / 5000MΩ
 - Range: 0.200MΩ - 5000MΩ
 - Short Circuit Current: <1.5mA
 - Automatic Discharge
 - Buzzer Disable Option: Yes
 - Accuracy: +/- 3% reading, + 5 digits
 - Continuity
 - Range: 0.1Ω - 40Ω
 - Resolution: 0.01Ω
 - Short Circuit Current: >200mA
 - Accuracy: +/- 3% reading, + 5 digits
 - Buzzer: <30Ω
 - Resistance: 0.1Ω - 1999kΩ
 - Open Voltage: 3V
 - Accuracy: +/- 3% reading, + 5 digits
- Voltage Tests
 - Voltage Range: 600V AC / DC
 - Live Circuit Warning: >30V
 - Accuracy: +/- 3% reading, + 5 digits
- User Settable Limits
 - Pass / Fail Indicators
 - Polarisation Index (PI)
 - Dielectric Absorption Ratio (DAR)
 - Memory Storage
 - LCD Backlit Display with Analog Arc
 - Auto Hold & Auto Zero
 - APO Disable Option
 - IP44 Protection
 - CAT III 600V Protection
 - Dimensions 90 x 120 x 54mm

Price Each

Order Code	Product Code	1+	3+
WX60953	IN2102	£269.50	£258.72

IN2103 250/500/1000V Insulation & Continuity Tester with PI & DAR



MARTINDALE
ELECTRIC

NEW

- The Martindale IN2103 is the top of the range insulation tester, and ideal for industrial use, as well as by users involved with the repair and reconditioning of motors
- Two key features of this professional tester include polarisation index (PI) and dielectric absorption ratio measurements (DAR)
- These sophisticated tests, introduced by Martindale for the first time in a handheld instrument, allow for more accurate measurement of insulation values.
- In addition the IN2103 displays the test voltage on the large backlit LCD display, features an analogue arc, continuity buzzer and continuity buzzer, auto hold and an automatic zero adjust which removes the resistance of the leads
- The test button can also be set to either latching, to give a permanent output, or 'press to test'
- The IN2103 is fully compliant with all UK and International standards, including the 17th Edition, and is supplied with unfused test leads with croc clips, batteries, instruction manual and a soft carry case.
- Insulation Tests
 - 250V: 4 / 40 / 400 / 1000MΩ
 - 500V: 4 / 40 / 400 / 4000MΩ
 - 1000V: 4 / 40 / 400 / 5000MΩ
 - Range: 0.200MΩ - 5000MΩ
 - Short Circuit Current: <1.5mA
 - Automatic Discharge
 - Buzzer Disable Option: Yes
 - Accuracy: +/- 3% reading, + 5 digits
 - Continuity
 - Range: 0.1Ω - 40Ω
 - Resolution: 0.01Ω
 - Short Circuit Current: >200mA
 - Accuracy: +/- 3% reading, + 5 digits
 - Buzzer: <30Ω
 - Resistance: 0.1Ω - 1999kΩ
 - Open Voltage: 3V
 - Accuracy: +/- 3% reading, + 5 digits
- Voltage Tests
 - Voltage Range: 600V AC / DC
 - Live Circuit Warning: >30V
 - Accuracy: +/- 3% reading, + 5 digits
- User Settable Limits
 - Pass / Fail Indicators
 - Polarisation Index (PI)
 - Dielectric Absorption Ratio (DAR)
 - Memory Storage
 - LCD Backlit Display with Analog Arc
 - Auto Hold & Auto Zero
 - APO Disable Option
 - IP44 Protection
 - CAT III 600V Protection
 - Dimensions 90 x 120 x 54mm

Price Each

Order Code	Product Code	1+	3+
WX60954	IN2103	£311.00	£298.56

LOKKIT1 Lock Off Kit



MARTINDALE
ELECTRIC

NEW

- Electrical safety is paramount when performing 17th Edition and Part P installation testing
- Every year people suffer electric shock and burn injuries, some of which are fatal
- Implementing the correct safe isolation procedures will ensure the safety of the electrician and avoid these accidents.
- The Martindale universal lock out kit is compatible with most circuit breakers
- It is supplied with a padlock that has its own unique key, and a safety hasp that enables multiple users to lock off with space for up to 6 padlocks.
- The full 14 piece kit includes:
 - 1 x Padlock with unique key
 - 1 x Steel safety hasp, with space for up to 6 padlocks
 - 1 x Green mini MCB lock
 - 1 x Yellow mini MCB lock
 - 1 x Blue medium MCB lock
 - 1 x Large red MCB lock
 - 1 x Red fuse lockout breaker
 - 5 x Danger tags which can be overwritten
 - 1 x Black marker for writing on Danger tags
 - 1 x TC55 soft carry case

Price Each

Order Code	Product Code	1+	3+
WX60955	LOKKIT1	£64.75	£62.16

VIPDLOK Voltage Indicator, Proving Device & Lock Out Kit



MARTINDALE
ELECTRIC

NEW

- The complete solution for safe isolation, the Martindale VIPD Lock Out Kit contains the VI13700/2 voltage indicator, PD440 proving device, along with a complete lock out kit, supplied with soft carry cases
- Nothing is more dangerous than trusting a defective voltage indicator to test for a dead circuit.
- Safe electrical work requires the use of a voltage indicator that has been proved with a proving unit before and after use.
- The Martindale VIPD contains the VI13700/2 voltage indicator and the PD440 proving device, enabling you to comply with health and safety recommendations for safe working.
- The 16 piece kit contains the following items:
 - 1 x PD440 proving device
 - 1 x VI13700 voltage indicator
 - 1 x Padlock with unique key
 - 1 x Steel safety hasp, with space for up to 6 padlocks
 - 1 x Green mini MCB lock
 - 1 x Yellow mini MCB lock
 - 1 x Blue medium MCB lock
 - 1 x Large red MCB lock
 - 1 x Red fuse lockout breaker
 - 5 x Danger tags which can be overwritten
 - 1 x Black marker for writing on Danger tags
 - 1 x TC55 soft carry case

Price Each

Order Code	Product Code	1+	3+
WX60956	VIPDLOK	£190.00	£182.40

We can supply
the entire
range. If you
can't see it
here, just call
0870 240 2100

FD650 Digital Fuse Finder Kit



MARTINDALE **NEW**

- The Martindale FD650 digital fuse finder kit allows for tracing of fuses through mains sockets, light fittings and points in a circuit where there is no power socket available
- The transmitter is supplied with a mains plug and a set of two wire test leads, emitting a signal for the receiver to pick up
- The microprocessor controlled multi-level sensitivity makes identification of fuses and breakers much easier
- The Elite fuse finder also features a non-contact voltage indicator
- The FD650 fuse finder is supplied in a hard carry case with a transmitter, mains plug, two wire test leads, receiver, batteries and instruction manual.
- Transmitter**
Transmission Pulse Width approx 1.7µS width
Transmission Pulse Amplitude 20A max
Frequency Range 50 - 60Hz
- Temperature Range:** -10°C to 40°C at max 60% RH
- Earth Leakage:** Nil
- Mains Supply:** 230V, 30 - 70Hz
- Power Consumption:** 1W approx
- Oversupply:** CAT III 300V
- Protection Class:** IP20
- Dimensions:** 65 x 65 x 46mm approx
- Weight:** 60g
- Receiver**
Tracing Depth 0 - 10cm, for fuse assignment (depending on local conditions)
Sensitivity Control Via digital stepping
- Temperature Range:** -10°C to 40°C at max 60% RH
- Protection Class:** IP20
- Power Supply:** 9V Battery (PP3 / MN1604) alkaline only
- Dimensions:** 160 x 55 x 30mm
- Weight:** 135g approx
- Units are EMC compliant**

Price Each

Order Code	Product Code	1+	3+
WX60957	FD650	£114.00	£109.44

Electrical Detector Discharge Pen



SKF

- The TKED 1 is capable of detecting sparks generated in electrical motor bearings whilst running
- Unique remote solution
- Capable of detecting electrical discharges on a time base of 10sec, 30 sec or indefinite
- No special training required as the instrument is operated with only two buttons
- LED backlit screen, allows for use in dark environments
- IP 55 can be used in most industrial environments
- Operational and storage temperature -120 to 70 deg C
- 255 x 210 x 60mm

Price Each

Order Code	Product Code	1+	4+
WX36344	TKED1	£387.45	£375.72

TEK500 Microwave Leakage Detector Kit



MARTINDALE **NEW**

- The Martindale TEK500 is a straightforward microwave leakage detector, which gives a simple LED indication as to leakage levels and is suitable for use with both commercial and domestic microwave ovens
- The unit is designed to comply with national standards on permitted exposure levels.
- A self test feature simulates a real microwave input, in order to ensure the unit is working correctly at all times and the leakage tester will indicate at 1, 5 and 10mW/cm², testing to BS5175.
- The test procedure for microwave ovens also includes checking that the microwave is heating correctly
- The TEK500 includes a beaker and digital thermometer in order for these tests to be carried out and to ensure your compliance with the testing requirements.
- The Martindale TEK500 microwave leakage detector kit is supplied with the leakage detector, beaker, digital thermometer, carry case & instruction manual. The manual also includes the calculations to apply when measuring the microwave output.
- Detection Frequency Range:** 2450MHz +/-25MHz
- Sensor Distance:** Fixed cone on rear of unit should be in gentle contact for standard 50mm separation
- Indicators Test Position:** All four LEDs should light and an audible tone will be emitted
- On Position:**
PASS: Green "sys" LED only (<1mW per cm²)
Green "sys" LED & yellow "1mW" LED (<5mW per cm²)
- FAIL:** Red "5mW" LED (>5mW per cm², audible tone)
Red "10mW" LED (>10mW per cm², audible tone)
- Supply:** 9V alkaline battery, PP3 / MN1604 or equivalent
- Dimensions:** 150 x 64 x 30mm
- Weight:** 170g approx

Price Each

Order Code	Product Code	1+	3+
WX60958	TEK500	£154.96	£148.76

- It allows rapid determination of phase sequence and has a voltage (up to 700V) and frequency range suitable for commercial and industrial applications
- Test probes supplied with the instrument have a variable size (HxWxD) : 124 x 61 x 27 mm
- Features:**
 - 3 phase indication via LCD
 - Indication of phase rotation
 - Clear LCD display
 - No battery required (Power supply 9040: from unit under test)
- Included accessories:**
 - Alligator clips - black (3)
 - Flexible test probes - black (3)

Price Each

Order Code	Product Code	1+	4+
WX38642	9040	£169.00	£163.55

Motor Rotation Indicator



FLUKE

- The unique Fluke 9062 provides rotary field and motor rotation indication with the benefits of contact-less detection
- Purpose made for commercial and industrial environments, the Fluke 9062 provides rapid indication of 3 phase rotation using test leads supplied or can be used to determine motor rotation on synchronous and asynchronous 3 phase motors
- The contact-less detection is ideal for use on motors where the shaft is not visible
- Test probes supplied with the instrument have a variable clamping range for safe contact, especially in industrial sockets
- Size (HxWxD) : 124mmx61mmx27mm
- Features:**
 - 3 phase indication via LED
 - Indication of motor rotation direction
 - Contact free determination of the rotation direction of running motors
 - Indication of phase rotation
 - Power supply 9062: 1 x 9V battery
- Included accessories:**
 - Alligator clips - black (3)
 - Flexible test probes - black (3)
 - Test leads - black (3)

Price Each

Order Code	Product Code	1+	4+
WX38643	9062	£144.00	£139.35

Sound Meters

Introduction to Sound in the Workplace

- There are legislative requirements surrounding sound in the workplace
- Employers have a legal duty to protect the hearing of their employees
- Damage to hearing from exposure to loud noise at work is preventable
- The risks can be controlled by good management
- Employers have to reduce risk of damage to employees' hearing and take specific actions where the noise exposure of their employees is likely to be at or above any of three 'action levels'.
- The Law - Recent Changes
- The Noise at Work Regulations Act 1989 came into effect on 1 January 1990 and implemented as the European Directive 86/188/EEC
- A European Directive was recently adopted which means that we must introduce new UK Noise Regulations by February 2006, now in force as The Control of Noise at Work Regulations 2005.
- Under the previous legislation, the Noise at Work Regulations 1989, the first action level was an LEP,d of 85dB(A) and the second action level was an LEP,d of 90dB(A).
- There was also a peak action level of 200 pascals (equivalent to 140dB(C) or (Z)) for exposures to high level noise of short duration, such as cartridge operated tools. This identifies the risks of exposure to impulsive noise as opposed to continuous noise exposure.
- The action levels have changed with the new legislation. Employers are required to take specific measures at these new levels, including carrying out noise risk assessments.

Noise At Work - Guide to Noise Exposure Levels

Noise level Exposure Time

85dB	8 hours
88dB	4 hours
94dB	1 hour
100dB	5 minutes
115dB	47 seconds
121dB	14 seconds
130dB	1.75 seconds

Noise Level dB	Example
50-60	Normal Conversation
65-75	Loud radio
78-85	Busy street
100	Light tractors, Electric hand tools, Light garden machinery
85-120	General manufacturing industry
100-120	Heavy tractors, Steel construction, Road construction
120-130	Forestry equipment, Chainsaws, Textile industry, Paper and printing works, Heavy plant, Pneumatic drills
120-150	Airports, jet engines, motor sports

Mini Digital Sound Level Meter



- Measuring range 40~130dB
- A frequency weighting
- Fast time weighting
- Precision 1/2 inch electret condenser microphone
- 26mm 4 digit LCD display
- Display updates every 0.5 seconds
- Auto backlight in dark environments
- Max/min hold
- Over display for out-of-range input
- Low battery indicator
- Auto power off after 15 minutes, preserves battery life
- Can be tripod mounted

- Supplied with wind muffler & battery

Technical Specifications

Range	40 to 130dB
Resolution	0.1dB
Accuracy	±3.5dB (94dB @ 1KHz)
Frequency Range	100Hz~8KHz
Power	9V PP3 battery x 1 (ALR-61)
Dimensions	128 x 51 x 32 mm
Weight	131g

Price Each

Order Code	Product Code	1+	4+
WX43951	MSL-85A	£47.50	£45.60

Sound Level Meter Class 2



- An affordable Sound Level Meter which fulfills IEC 60651 requirements
- Accuracy class 2 L
- Detachable microphone to avoid measurement errors
- Calibration via buttons
- Accurate quartz calibrator available as accessory
- Includes:
 - Microphone
 - Wind cap and battery

Accuracy	Range	Resolution
+/-1 dB	32 - 130 dB	0.1 dB

Price Each

Order Code	Product Code	1+	4+
WX32679	05638155	£227.85	£221.25

Multi-Function Environment Meter



- A cost effective introduction to aid conformance to Health and Safety in the workplace

- Measures sound levels, light levels, % RH and temperature
- Electric condenser microphone for sound level measuring C frequency
- Cosine corrected silicone diode sensor for lux level
- Semi-conductor sensor for humidity measurements
- K Type input for °C/F temperature measurements
- Includes:
 - Case
 - Lux, RH and Wire Temperature Sensors
 - Battery
 - Wind Muffler

Function	Accuracy	Range	Resolution
Sound	+/-3.5 dB	35-130dB	±0.1 dB
Lux	±5%	0-20,000	1 Lux
%RH	±5%RH	25-95%	0.1% RH
Temperature	±3%Rdg +2°	-20-750°C	0.1°C

Price Each

Order Code	Product Code	1+	4+
WX30029	PT-5035	£130.00	£124.80

Sound Level Meter



- Precision sound level meters designed to meet IEC 61672-1 Class 2 with accuracy of ±1.4dB. A 1/2" electret condenser microphone ensures accurate and repeatable readings. A modern ergonomically shaped grip, high-intensity backlight and USB interface make these sound level meters extremely convenient to use. The SL-8852 features data logging for 32,600 readings.

- Auto ranging 30 to 130dB
- Manual ranges 30~80dB, 50~100dB, 80~130dB
- Large LCD display with function indicators, quasi-analogue bargraph and backlight
- User selectable 'A' & 'C' frequency weighting
- Fast or slow response
- Max/min & hold measurements
- Data logging for 32,600 readings (SL-8852)
- Data sampling interval can be set by the user from 1 second to 59 seconds (SL-8852)
- Over range and under range indication
- Low battery indication
- Auto power off after 15 mins of no activity
- Standard 4mm camera bush for tripod mounting
- USB interface for data transfer to a PC
- Analogue output AC: 1 Vrms, DC: 10mV per dB
- User calibration via a potentiometer using a standard sound level calibrator
- Supplied with battery, wind muffler, tripod, USB cable (2m), software & hard carry case

Technical Specifications

Range:	30 to 130dB
Resolution:	0.1dB
Accuracy:	±1.4dB
Frequency Range:	31.5Hz~8KHz
Power:	9V PP3 Battery
Dimensions:	278 x 76 x 50mm
Weight:	350g

Price Each

Order Code	Product Code	1+	4+
WX41982	SL-8851	£165.00	£158.40
WX41983	SL-8852	£195.00	£187.20

Light Meters

Introduction to Lighting in the Workplace

- Light can be measured in many ways. Lux is the European standard for light measurement.
- Lux is a unit of illumination of one square metre, which is one metre away from a uniform light source
- Legislative Requirements
- Under Health & Safety at Work Act 1974 an employer has a duty to ensure the health and safety of employees
- The Act includes a duty to provide lighting to ensure that work can be done safely and that employees health or eyesight are not jeopardised
- Regulation no.8 of the workplace Regulations 1992 states employers must ensure that:
 - Every workplace has suitable and sufficient lighting
 - This should be natural light, so far as reasonably practicable

Pocket Light Meter



- Innovative pocket sized measurement technology for measuring ambient light conditions
 - Small, compact and accurate
 - Sensor is adjusted to the spectral sensitivity of the eye
 - Hold reading function
 - Max./min. values
 - Range 0 to 99,999 Lux
 - Units Lux, footcandle
 - Includes:
 - Wrist strap, belt holder, protective cap, batteries and calibration protocol
- Dimensions: 133x46x25mm

Price Each

Order Code	Product Code	1+	4+
WX42055	05600540	£115.50	£112.15

Light Meter with Location Management



- In order to have good quality light, the luminous intensity in the workplace, hospitals, offices or schools has to fulfill specific minimum guidelines
- The revolutionary flexible shaft adjusts into almost any position
- A location list can be saved and separately saved luminous intensity values can be connected to form a curve using software
- This "light profile" provides information on the uniformity of the lighting

- Multi-point or timed mean calculation
- Logger function (3000 readings)
- Quick documentation on location with Testo printer
- Includes:
 - Probe
 - Batteries
 - Certificate of Conformity

Accuracy	Range	Resolution
+/- 1	0 - 100,000	1 Lux (0 - 32,000) 10 Lux (0 - 100,000)

Price Each

Order Code	Product Code	Description	1+	4+
WX32669	05600545	Light Meter	£354.90	£344.61

‡ Special delivery applies. Please call for details

Air Temperature and Humidity Measurement



Thermometers

Air and Surface Temperature



- Surface temperature IR measurement with 1-point laser spot marking and 6:1 optics
- Air temperature measurement
- Display of differential temperature e.g between window and air temperature
- Hold function and max./min. values
- Units °C / °F
- Includes:
 - Batteries (AAA x 2)
 - Wrist strap
 - Belt holder
 - Protective Cap

Dimensions (inc cap) 119x46x25mm

Surface Temperature Air Temperature
-30 to 300°C -10 to 50°C
Accuracy: ±2.0°C (-30 to 100°C) Accuracy: ±0.5°C

Price Each

Order Code	Product Code	1+	4+
WX42049	05600610	£140.70	£136.62

174T Mini Data Logger



Also see our Power Tools section



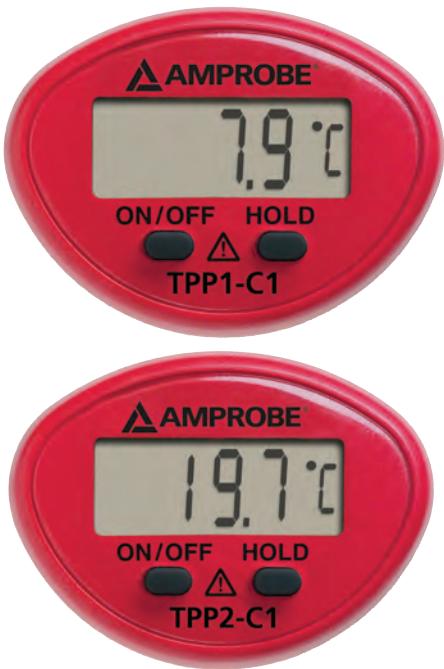
- The testo 174T mini data logger is ideal for the temperature measurement in refrigerators, freezers, cold rooms and cold shelves

- High data integrity, even with empty battery
- Large measurement data memory
- Watertight in accordance with IP65
- Compact and robust
- Conforms to EN12830
- Issue of alarms via display
- Data transfer to the PC via USB interface
- Probe type: Internal NTC temperature sensor
- Measuring range: -30 to +70 °C
- Accuracy: ±0.5 °C (-30 to +70 °C)

Price Each

Order Code	Product Code	1+	4+
WX53678	05721560	£51.45	£49.96

Pocket Thermometer



AMPROBE

- Small handy thermometers that are ideal for everyday use
- Range -50 to 250 °C
- 0.1 °C resolution
- Data hold
- Long battery life, 200hr. typical
- Two models:
- TPP1-C Immersion piercing probe with protective sleeve
- TPP2-C Surface probe

Price Each

Order Code	Product Code	1+	5+
WX36054	TPP1-C	£12.00	£11.61
WX38668	TPP2-C	£12.00	£11.61

EXTECH SD800 CO2/Humidity/Temperature Datalogger



EXTECH
INSTRUMENTS

NEW

- Checks for Carbon Dioxide (CO2) concentrations
- Maintenance free dual wavelength NDIR (non-dispersive infrared) CO2 sensor
- Triple LCD simultaneously displays CO2, Temperature and Relative Humidity
- Measurement ranges: CO2 - 0 to 4,000ppm; Temperature - 32 to 122°F (0 to 50°C); Humidity - 10 to 90%RH
- Datalogger stores readings on an SD card in Excel® format for easy transfer to a PC
- Selectable data sampling rate: 5, 10, 30, 60, 120, 300, 600 seconds or Auto
- Complete with six AAA batteries, 2G SD memory card, universal AC adaptor, and mounting bracket

Price Each

Order Code	Product Code	1+	4+
WX60960	SD800	£300.00	£285.92

Pocket Checktemp



HANNA
instruments

- Checktemp is provided with a unique calibration check function: simply activate a switch and the instrument will simulate an ice bath of 0.0°C signal that is displayed on the LCD within a range of +/-0.3°C. This system guarantees the accuracy of your measurement every time!
- The sharp tip probe of the Checktemp easily penetrates semisolid products, making routine controls simple and quick for both incoming and outgoing goods
- Checktemp is the ideal instrument for measuring temperature to HACCP requirements
- Probe: Stainless steel 105mm x dia 3mm (4.1x0.1")
- Battery: (1) 1.5V Approx 3000 hours use
- Dimensions: 66x50x25mm
- Weight: 122g

Accuracy Range Resolution

$\pm 0.3^\circ\text{C}$ (-20 to 90°C) -50.0 to +150.0°C 0.1°C

$\pm 0.5^\circ\text{C}$ outside

Price Each

Order Code	Product Code	1+	4+
WX31395	CHECKTEMP	Checktemp	£29.74
WX31415	HI-92200	200 Sterilising Wipes	£4.59

Industry Differential Thermometer



testo

- Testo 935 thermometer can measure the temperatures of 2 probes
- Ability to show readings simultaneously on the easy-to-read display
- The differential temperature can be called up and data is printed on site on the Testo printer
- 2 channels, Type K/J/T
- Display for T1, T2 and differential temperature
- TopSafe indestructible case protects from dirt and impact
- Includes battery and Certificate Of Conformity

Accuracy	Range	Resolution
----------	-------	------------

$\pm (0.7^\circ\text{C} \pm 0.5\% \text{ of mv})$	-50 to 1000°C	0.1°C (-50 to 199.9°C)
---	---------------	------------------------

(-40 to 900°C)	1°C (200 to 1000°C)
----------------	---------------------

$\pm (1^\circ\text{C} \pm 1\% \text{ of mv})$

(-50 to -40.1°C)

$\pm (1^\circ\text{C} \pm 1\% \text{ of mv})$

(90.1°C to 1000°C)

$\pm (0.7^\circ\text{C} \pm 0.5\% \text{ of mv})$	-50 to 750°C	0.1°C (-50 to 199.9°C)
---	--------------	------------------------

(-50 to 750°C)	1°C (+200 to 750°C)
----------------	---------------------

$\pm/-0.6^\circ\text{C}$ (-20 to 70°C)	-50 to 350°C	0.1°C (-50 to 199.9°C)
--	--------------	------------------------

$\pm/-1^\circ\text{C} \pm 0.5\% \text{ of mv}$	1°C (+200 to 350°C)
--	---------------------

(-50 to -20.1°C)

$\pm/-1^\circ\text{C} \pm 0.5\% \text{ of mv}$
--

(70.1°C to 350°C)

Price Each

Order Code	Product Code	1+	4+
WX32673	05609221	£117.60	£114.19

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local Sales and
Service Centre
and authorised
suppliers**



Contact Brammer on 0870 240 2100

Test & Measurement 2051

General Purpose Thermometer



- Ideal for measuring the temperature of a wide variety of industrial applications such as bearing housings and gearboxes
- Durable, user friendly, pocket sized instrument
- A flexible probe ensures effective surface contact for accurate temperature measurement
- Supplied with a handy pouch and belt clip
- Resolution of 1°C/F
- Auto power off function

Temperature Range -40 to 200°C (-40 to 392°F)

Display Resolution 1° / °F

Probe K - Type

Weight 95 g (0.2 lbs)

Battery 3 x AAA

Battery Life 4000 Hours

IP Rate IP65

Price Each

Order Code	Product Code	Description	1+	3+
WX32575	TMTP200	Thermometer	£131.79	£127.67

Single Input K-Type Thermometer



- Single Input K-Type Thermometer
- These single input K-Type thermometers offer high accuracy and fast response times. Ideal for industrial and laboratory use.
- -50° to 1300°C x 0.1°
- Measures in °C, °F or Kelvin, user selectable
- Sampling rate of 2.5 times per second
- Over Range indication
- Data Hold freezes displayed values
- Max Hold displays highest measured value
- Auto Power Off
- Low Battery indication
- 45mm LCD display with Backlight and function indicators
- Impact-resistant ABS case with protective rubber holster and flip out stand
- Room temperature compensation via 'TC' button. Temperature compensator that shows the room temperature when pressed with no k-type probe connected.
- 45mm LCD display with Backlight and function indicators
- Impact-resistant ABS case with protective rubber holster and flip out stand

- Supplied with carry case, rubber holster, 950mm bead probe and battery
- Range -50° to +1300°C, -58° to 2000°F, +223K to 2000K
- Resolution User Select 0.1° or 1° < 199.9°, 1° > 200, 1K
- Accuracy ±(0.5%rdg +1°C) (0° to 1000°C)
- ±(0.8%rdg +1°C) (1000° to 1300°C)
- Power 1 x 9V PP3 Alkaline Battery (LR-61)
- Dimensions 162 x 76 x 39mm
- Weight 210g

Price Each

Order Code	Product Code	1+	4+
WX60962	TK-610B	£57.50	£55.20

‡ Special delivery applies. Please call for details

High Accuracy Dual Input K-Type Thermometer



- This dual input K-Type thermometer offers higher accuracy to 0.15% of reading and fast response times
- Suitable for industrial and laboratory use
- Measures in °C, °F, or °Kelvin, user selectable
- Impact-resistant ABS case with protective rubber holster & flip out stand
- 45mm LCD display with high intensity backlight and function indicators
- Sampling rate of 2.5 times per second
- Auto power off
- Max hold and data hold
- Over range indication
- Low battery indication
- Scan function for T1, T2, T1-T2, max, hold
- Room temperature compensation
- Dual Input Thermometer accepts 2 inputs with individual measurements or as differential measurements, T1 minus T2
- Supplied with two probes, carry case and battery

- Range -200° to +1372°C, -328° to 2501°F
- Resolution User Select 0.1° or 1°C or F (above 199.9°, use 1°), 1K
- Accuracy ±(0.15%rdg +1°C/1.8°F) (above -100°C/-148°F) T1,T2
- Units ±(0.5%rdg +2°C/3.6°F) (below -100°C/-148°F) T1,T2
- ±(0.5%rdg +1°C/1.8°F) T1-T2
- Power 1 x 9V PP3 battery
- Dimensions 165 x 76 x 43mm
- Weight 403g

Price Each

Order Code	Product Code	1+	4+
WX43952	TK-613	£87.50	£84.00

‡ Special delivery applies. Please call for details

High Accuracy K-Type Thermometers with Infrared Probe



- High accuracy K-Type thermometer
- Single Input Thermometer TK-8891B accepts 2 inputs and displays individual and differential measurements, T1, T2 or T1-T2
- Dual Input Thermometer TK-8891 accepts 3 inputs and displays individual and differential measurements, T1, T2, T3, T1-T2 or T2-T3

- Measure in °C, °F, & Kelvin, user selectable
- Impact-resistant ABS case with rubber grip
- Large 56mm LCD display with high intensity backlight and function indicators
- Simultaneous display of 3 readings from T1, T2, T3, T1-T2, T1-T3, T2-T3 with user selectable primary reading
- Max, min, average with elapsed time and time of max & min readings
- Data hold function
- Offset mode allows temperature compensations to be set up individually for each temperature channel T1, T2 & T3
- Auto power off
- Over range indication
- Low battery indication
- Supplied with carry case, infrared probe, 950mm bead probe(s) & battery

Range -200° to +1372deg°C, -328° to 2501°F (K-Type), -30° to +550°C, -22° to 1022°F (IR)

Resolution 0.1° (<1000°C), 1° (>1000°C)

Accuracy: $\pm(0.15\%rdg +1°C/1.8°F)$ (above -100°C/-148°F) T1, T2
 K-Type IR $\pm(0.5\%rdg +2°C/3.6°F)$ (below -100°C/-148°F) T1, T2
 $\pm(0.5\%rdg +1°C/1.8°F)$ T1-T2
 $\pm(2.0\%rdg +2°C/3.6°F)$
 $\pm(2.0\%rdg +3°C/5.4°F)$ T1-T3 & T2-T3

Power 1 x 9V PP3 battery

Dimensions 203 x 75 x 50mm

Weight 280g (unit only), 475g (incl probes)

Price Each

Order Code	Product Code	1+	3+	
WX43953 ‡	TK-8891B	Single Input with IR Probe	£135.00	£129.60

Order Code	Product Code	1+	3+	
WX43954 ‡	TK-8891	Dual Input with IR Probe	£155.00	£148.80

‡ Special delivery applies. Please call for details

Digital K-Type Folding Probe Thermometer & Probe Kit



- This K-Type folding probe thermometer with 4 stainless steel probes offers ease of use, fast response and flexibility for a wide variety of temperature measurements
- The versatile probe kit is ideally suited for surface, air, liquids or semi-solid sampling with the 4 stainless steel probes supplied
- The probe connector is adjustable through 45, 90, 135 or 180 degree angles
- Measures °C or °F
- ABS case with a folding K-Type probe connector
- 4 K-Type stainless steel thermocouple probes: 2 penetration probes 125 x 3mm and 140 x 4mm, 1 air probe 230 x 3mm, 1 surface probe 250 x 4mm
- Probe connector adjustable through 45°, 90°, 135° or 180°
- Large 22mm LCD display with timer and function indicators
- Fast response time of 1 second
- Data Hold
- Min/Max memory since power on
- Auto power off after 1 hour
- Low battery indicator
- Suitable for all K-Type thermocouple probes with mini K-Type plugs
- Supplied with hard carry case, 4 K-Type probes, wrist strap & batteries

Range -199°C to +300°C (-328° to +572°F) for probes supplied
 -199°C to +1300°C (-328° to +2000°F) with suitable probes

Resolution 0.1°C or F

Accuracy $\pm 1°C/1.8°F$ (-49°C to +740°C/-56.2°F to +1364°F)
 $\pm 2°C$ or $4°F$ others

Sampling Every second

Power 2 x 3V button cell battery

Dimensions 155 x 50 x 20mm

Weight 75g

Price Each

Order Code	Product Code	Description	1+	3+
WX43956	MEL-USB-TC	Data Logger	£69.35	£66.58

Workplace Thermometer



Price Each

Order Code	Product Code	Description	1+	3+
WX43955	TK-9218	Folding Probe Kit	£75.00	£72.00

Thermocouple Data Logger with USB Interface



- The MEL-USB-TC data logger measures and stores over 32,000 temperature readings for a K, J or T-Type thermocouple probe with simple download of the stored data directly to your PCs USB port
- Thermocouple Data Logger Stores > 32,000 readings for a K, J, or T-Type thermocouple probe
- Thermocouple socket in the base of the unit accepts a K, J, or T-type thermocouple temperature probe with the standard mini plug
- USB interface for set up and data transfer to PC
- Set up allows the user to select thermocouple type, logging rate, start time, alarm limits and logging mode
- User selectable logging intervals min 1 sec, max 12 hours
- LED display for status information
- 2 user-programmable alarm thresholds
- Visual LED alarm if high or low limits exceeded
- PC analysis software runs under Windows 2000, XP or Vista with graphical display of data - total readings, zoom facility to individual readings and visual indication of alarm levels
- Supplied with software, battery and K-Type thermocouple

Price Each

Order Code	Product Code	1+	4+
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WX53555	TH-390	£10.00	£9.60
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We provide access to technical expertise through your local Sales and Service Centre and authorised suppliers

Calibration Tools

Multifunction Process Calibrator/Meter



EXTECH
TESTING INSTRUMENTS
A FLIR COMPANY

NEW

- 0 to 24mA (-25 to 125%) readout
- 24V DC power source for 2-wire current loop
- 0 to 20V DC calibration source
- Source and measure 8 thermocouple type devices (J, K, T, E, C, R, S and N)
- CJC - Cold Junction Compensation function
- Up to five user adjustable calibration presets
- Palm-sized double molded housing and large dot-matrix backlit LCD
- High accuracy calibration function simulates precision thermocouple outputs for use in calibrating thermometers, transmitters, controllers or recorders
- Displays output in terms of millivolts or temperature based on thermocouple tables
- Zero adjustment, auto zero when power on and change mode
- Standard banana I/O ports and mini thermocouple connector
- Large battery bank for extended work cycle
- External power adapter for continuous work cycle
- Complete with test leads, alligator clips, calibration cables, 100V-240V AC universal adaptor with 4 plugs, six AA batteries, and hard carrying case

Price Each

Order Code	Product Code	Description	1+	3+
WX60964 ‡	PRC30	Calibrator	£455.00	£433.23

‡ Special delivery applies. Please call for details

Infrared Thermometers

TKTL 10 Infrared Thermometer



SKF

- Wide measurement range from -60 to +625 °C (-76 to +157 °F); allows temperature measurements of many industrial applications
- Distance-to-spot ratio of 16:1; allows accurate temperature readings at a distance
- Fixed emissivity of 0,95; suitable for many applications
- Maximum temperature always shown; helps identify the real hotspots
- Auto shut off feature; helps optimise battery life

Price Each

Order Code	Product Code		1+	4+
WX53635	TKTL-10	Infrared Thermometer	£78.96	£76.49

TKTL 20 Infrared & Contact Thermometer



SKF

- Infrared temperature measurement range from -60 to +625 °C (-76 to +157 °F)
- Contact temperature measurement range from -64 to +1 400 °C (-83 to +1 999 °F)
- Distance-to-spot ratio of 16:1; allows accurate temperature readings at a distance
- User selectable variable emissivity between 0,1 and 1,0; allows most surface temperatures to be measured
- Supplied with temperature probe TMDT 2-30 (max. 900 °C / 1 652 °F); suitable for many direct contact applications
- Can be used with any SKF temperature probe
- User selectable, multiple temperature measurement modes including: maximum, minimum, average, differential and probe/infrared dual display, scan function
- User selectable high and level alarm levels with audible warning signal
- Mode dependant auto shut off feature optimises battery life
- Supplied in a sturdy carrying case

Price Each

Order Code	Product Code		1+	4+
WX53636	TKTL20	Dual Thermometer	£162.07	£157.00

Dewpoint Laser Temp Detector



NEW

- Dew Point Temperature Detector with Dual Laser Targeting
- A high accuracy combined temperature, humidity & dew point infrared thermometer with dual laser targeting for fast and accurate non-contact measurement of most surfaces. Suitable for a wide range of applications including storage, factories, warehouses, manufacturing, plant & general maintenance, HVAC, transportation & automotive and health & safety.
- 50° to 350°C x 0.1°, 0% to 100% x 0.1%
- User selectable °C or °F
- Select Temperature, Humidity or Dew Point by pressing the MODE button
- Just point, pull the trigger and read the display
- Dual laser pointers converge to a single spot when the unit is at the optimal distance from the object being measured
- Class II laser to identify the centre of the area being measured
- Distance to spot size ratio is 20 to 1 at the focal point
- Fixed emissivity at 0.95
- Response time less than 150 milliseconds
- 37.0mm LCD dual display with Backlight and function indicators
- Trigger Lock for continuous measurement
- Maximum display
- Over Range Indicator - LED warning light that shows three different colours; green indicates normal (no moisture), yellow indicates close to dew point & red indicates dew point
- Auto Power Off after 15 minutes of no activity
- Low Battery indication
- Supplied with carrying case, manual and battery

	Temperature	Humidity	Dew Point
Range	-50°C to +350°C	0 to 100%RH	-30°C to +100°C
Resolution	0.1°C	0.1%RH	0.1°C
Accuracy	±3.5°C (-50°C to +20°C)	±3.5%RH (20% - 80%)	±2.0% of reading
	±1% of reading		
	±1.5°C (+20°C to +350°C)		
Power	1 x 9V PP3 Alkaline Battery (LR-61)		
Dimensions	168 x 82 x 58mm		
Weight	163g		

Price Each

Order Code	Product Code	1+	4+
WX60966	HT-8663	£91.00	£87.36

Dual Laser IR Thermometer with Color Alert



AMPROBE

- "Pistol grip design" for comfortable grip
- Small enough to fit in your pocket
- Measuring range -18 °C to 275 °C
- Laser sighting for accurate targeting
- Display hold (7 seconds)
- Distance to spot size ratio 8:1
- Accuracy to 2%
- Backlit display
- Included with instrument: 9V battery (installed), operating instructions

Price Each

Order Code	Product Code		1+	4+
WX60965	IR608		£71.00	£68.71

- Great for processes that require temperature control and monitoring
- Fast and accurate measurements at 12" where the two lasers converge with 12:1 field of view
- Measures up to 950°F (510°C)
- Blue backlit dual LCD display changes to Red backlit when reading exceeds High or Low set points
- Exclusive 150 millisecond instantaneous response for capturing spikes in temperature
- Max mode captures and holds rapidly changing temperatures
- Lock function for continuous readings (disables auto power off)
- Adjustable emissivity increases measurement accuracy for different surfaces
- Double molded housing
- Complete with case and 9V battery

■ Specifications:

Laser Convergence Distance: 12" (30.5cm)
 Range: -4 to 950°F (-20 to 510°C)
 Repeatability: ±0.5% or 1.8°F/1°C
 Basic Accuracy: ±1% of rdg + 2°F/1°C
 Max resolution: 0.1°F/1°C
 Emissivity: 0.10 to 1.00 Adjustable
 Field of View (Distance to Target): 12:1
 Dimensions: 5.7x4x1.6" (146x104x43mm)
 Weight: 5.7oz (163g)

Price Each

Order Code	Product Code	1+	4+
WX53588	42509	£76.00	£72.75

Dual Laser Infrared and Contact Thermometer



SKF **NEW**

- A contact and non contact infrared thermometer with a wide measurement range and dual laser sighting
- Wide infrared temperature measurement range from -60 to +1 000 °C (-76 to +1 832 °F).
- Contact temperature measurement range from -64 to +1 400 °C (-83 to +1 999 °F)
- Dual laser sighting feature defines the diameter of the area being measured; helps the user to precisely pin-point the temperature measurement area
- Distance-to-spot ratio of 50:1; allows accurate temperature readings at long distances or for measuring temperatures of small areas
- User selectable variable emissivity between 0.1 and 1.0; allows most surface temperatures to be measured.
- Supplied with temperature probe TMDT 2-30 (max. 900 °C/1 652 °F); suitable for many direct contact applications
- Can be used with any SKF temperature probe
- User selectable, multiple temperature measurement modes including: maximum, minimum, average, differential and probe/infrared dual display, scan function
- User selectable high and level alarm levels with audible warning signal
- Mode dependant auto shut off feature optimises battery life
- Supplied in a sturdy carrying case

Technical data

Designation	Infrared digital thermometer TKTL 30
Description	Infrared digital thermometer
Temperature range using infrared	-60 to +1 000 °C (-76 to +1 832 °F)
Temperature range using probe	-64 to +1 400 °C (-83 to +1 999 °F)
Probe supplied	TMDT 2-30, suitable for use up to 900 °C (1 650 °F)
Environmental limits	Operation 0 to 50 °C (32 to 120 °F) 10 to 95% R.H. Storage -20 to 65 °C (-4 to 150 °F) 10 to 95% R.H.
Full range accuracy	±2% of reading or 2 °C (4 °F) whichever is greater
(Tamb=23 ±3 °C)	
Response time (90%)	<1 000 ms
Display	LCD
Displayed resolution	0.1 °C/F from -9.9~199.9, otherwise 1 °C/F
Distance to spotsize	50:1.00
Spectral response	8-14 µm
Emissivity	0.1-1.0
User selectable backlit display	On/Off
User selectable laser pointer	On/Off
Measurement modes	Max, min, average, differential, probe/IR dual temperature modes
Alarm modes	High and low level alarm level with warning beep
Laser wavelength	630-650 nm
Laser	Class 2
Maximum laser power	1 mW
Dimensions	203.3 x 197 x 47 mm (8.0 x 7.7 x 1.8 in.)
Packaging	Sturdy carrying case
Case dimensions	340 x 200 x 65 mm (13.4 x 7.9 x 2.6 in.)
Weight	Total (incl. case): 1 080 g (2.38 lbs) TKTL 30: 370 g (0.815 lbs)
Battery	2 x AAA Alkaline type IEC LR03
Battery lifetime	140 hours with laser and backlight off. Otherwise 18 hours
Switch off	IR mode automatic after 60 s after trigger is released (60 min can be manually selected) Probe mode automatic after 12 min
EMC standards	EMC 2004/108/EC

Price Each

Order Code	Product Code	1+	4+
WX38639	63	£187.00	£181.81

Fluke VT02 Visual IR Thermometer



FLUKE **NEW**

The VT02 Visual IR Thermometer combines the convenience of a spot thermometer with the visual advantage of a thermal imager creating a brand new tool category – a troubleshooting camera with infrared heat map. Using hyper-thin pyro electric technology, Fluke discovered a way to push the limits of this technology, pioneering an array dense enough to create an infrared heat map. The VT02 Visual IR Thermometer is the missing link – the ultimate in-between tool for those times when a single spot temperature reading isn't enough and a high-resolution thermal image is more than you need.

Price Each

Order Code	Product Code	Description	1+
WX60959	VT02	Visual IR Thermometer	£549.00

Mini Infrared Thermometer



testo

- The compact 80mm Infrared Thermometer fits into any pocket
- Rapid measurements
- High accuracy in any critical area
- Packaging remains undamaged
- TopSafe is dishwasher safe and IP 65 waterproof
- Display of min and max values
- Scan mode for permanent measurement
- Emissivity of 95 and 1.00

Specification Table

Range	-25 to +250°C
Accuracy	±3°C (-25 to 21°C)
	±1°C (-2 to 40°C)
	±1.5°C (+40 to 150°C)
	±2°C (remaining range)
Resolution	0.1°C (-9.9 to +199.9°C)
	1°C (remaining range)
Operating Temp	0 - +50°C
Dimensions	80 x 31 x 19 mm

Price Each

Order Code	Product Code	1+	4+
WX38700	05638051	£55.13	£53.53

† Special delivery applies. Please ask for details

Fluke Infrared Thermometers



FLUKE

NEW

- Designed with your on-the-job needs in mind, the new Fluke 62 MAX and 62 MAX+ infrared thermometers are everything you'd expect from the experts in measurement tools.
- Small in size, extremely accurate and very easy to use.
- IP54 rated for dust and water resistance.
- Precise yet rugged enough to take a 3-meter drop.
- The 62 MAX and 62 MAX+ are so tough, they're the only IR thermometers around you can handle without care.

Specifications	62 Max	62 Max+
Temperature range	-30°C to 500°C (-22°F to 932°F)	-30°C to 650°C (-2°F to 1202°F)
Accuracy	± 1.5°C or ± 1.5% of reading ± 2.0 at -10°C to 0°C ± 3.0 at -30°C to -10°C	± 1.5°C or ± 1.0% of reading ± 2.0 at -10°C to 0°C ± 3.0 at -30°C to -10°C
Response time (95%)	<500ms (95% of reading) Spectral response: 8 to 14 microns	<300ms (95% of reading) Spectral response: 8 to 14 microns
Optical resolution	10:1 (calculated at 90% energy)	12:1 (calculated at 90% energy)
Display resolution	0.1°C (0.2°F)	0.1°C (0.2°F)
Repeatability of readings	± 0.8% of reading or <± 1.0°C ± 0.5% of reading or <± 0.5°C (1°F) whichever is greater	± 0.5% of reading or <± 1.0°C ± 0.5% of reading or <± 0.5°C (1°F) whichever is greater
Power	AA Battery	AA Battery

Price Each

Order Code	Product Code	Description	1+
WX32366	62MAX	Infrared Thermometer	£84.00
WX60961	62MAX+	Infrared Thermometer	£100.00

Humidity Meters

Thermo-Hygrometer



- Simultaneous display of humidity in % RH & temperature in °C or °F
- 63mm x 80mm large digit LCD display
- Min/max memory since last reset
- Single button allows min/max readings to be displayed separately for temperature and humidity
- Reset clears memory for both temperature and humidity
- Impact-resistant ABS case with a flip out desk stand for free standing applications and key-way for wall mounting

Specification Table

Temp Range	-10°C to +50°C
Humidity Range	25% to 98% RH
Resolution	0.1°C, 1% RH
Accuracy	±1°C, ±5% RH
Power	1 x 1.5V AA battery (supplied)
Dimensions	138x95x20mm only
Weight	143g

Material moisture measuring range: 0 to 90%

Accuracy: ± 1% (conductivity)

Air humidity measuring range: 0 to 100%rh Accuracy: ± 2.5%rh (5 to 95%rh)

Air temperature: -10 to 50°C Accuracy: ± 0.5%

Price Each

Order Code	Product Code	1+	4+
WX42056	05606062	£166.95	£162.11

Humidity and Temperature meter



AMPROBE

- Dual display of relative humidity and temperature
- Relative function monitors humidity and temperature changes
- Extended probe stem to easily access air ducts
- Min/max readings
- Data hold to freeze measurement value on display
- Capacitive sensor with protective cover
- Auto power off
- Soft carrying case

Accuracy	Range	Resolution
5 % RH to 95 % RH: ±3 % RH	0 to 100 % RH	0.1 % RH
-20 °C to 60 °C: ±0.8 °C	-20 °C to 60 °C (-4 °F to 140 °F)	0.1 °C/0.1 °F

Price Each

Order Code	Product Code	1+	4+
WX38669	TH-3	£93.00	£90.00

Thermo Hygrometer



testo

- Affordable thermo hygrometer
- Continuous measurement of %rh, temperature and temperature dew point; Min/Max display
- Humidity sensor not damaged by water saturation
- Large easy to read display
- 2 to 98%rh Measuring range

Price Each

Order Code	Product Code	1+	4+
WX38697	05606081	£58.49	£56.79

Material Moisture, Air Temperature and Humidity



testo

- Measurement of wood moisture e.g. beech, spruce, larch, oak, pine and maple
- Air temperature and humidity for monitoring drying processes
- Curves for cement screed, concrete, plaster, anhydrite, cement, mortar, lime and brick
- Hold and auto-test functions
- Includes:-**
- Batteries (AAA x 2)
- Wrist strap
- Belt holder
- Protective Cap
- Dimensions (inc cap) 119x46x25mm

Temperature Humidity Meter



FLUKE

- Quickly take accurate humidity and temperature readings in the air
- Temperature and humidity are two important factors in maintaining optimal comfort levels and good indoor air quality
- The Fluke 971 is invaluable for facility maintenance and utility technicians, HVAC-service contractors, and specialists
- Lightweight, rugged, and easy to hold, the Fluke 971 is the perfect tool for monitoring problem areas
- Measures dew point and wet bulb
- 99 Record storage capacity
- Min/max/avg data hold

■ Ergonomic design with built-in belt clip and protective holster	
■ Backlit, dual readings display	
■ Battery life: 4 AA alkaline, 200 hours	
Temperature Range	-20 °C to 60 °C
Temperature Accuracy	
0 °C to 45 °C	± 0.5 °C
-20 °C to 0 °C and 45 °C to 60 °C	± 1.0 °C
Resolution	0.1 °C
Response Time (temperature)	500 ms
Temperature Sensor Type	NTC
Relative Humidity Range	5% to 95% R.H.
Relative Humidity Accuracy	
10 % to 90 % R.H. @ 23 °C	± 2.5 % R.H.
<10 % > 90 % R.H. @ 23 °C	± 5.0 % R.H.
Humidity Sensor	Electronic capacitance polymer film sensor
Data Storage	99 points
Response Time (humidity)	For 90% of total range – 60 sec with 1 m/s air movement

Price Each			
Order Code	Product Code	1+	4+
WX38644	971	£175.00	£170.14

Precision Thermo-Hygrometer



- Measures absolute and relative humidity
- Compact, easy-to-use, robust instrument for fast, accurate and repeatable measurements of absolute and relative humidity, air temperature, dew point & wet bulb temperatures
- Ideal for single-handed operation when taking measurements in air stream
- Suitable for monitoring air conditioning and heating system ducts, controlled environments, storage areas and other critical areas
- Displays relative humidity in %RH, absolute humidity in grams per cubic meter(g/m³) or grains per cubic foot(gr/ft³)
- Displays air temperature, dewpoint & wet bulb temperature in °C or °F
- Impact-resistant ABS case with integrated humidity/temperature probe sensor and shaped rubber moulded grip
- Precision capacitance humidity sensor for fast and accurate readings
- Thermistor temperature sensor
- Large high-contrast 56mm backlit LCD dual display with function indicators
- Simultaneous display of humidity and temperature readings
- Min/max values
- Data hold freezes displayed readings
- Low battery indication
- Auto off after 10 minutes can be user disabled
- Tripod mount bush
- Supplied with hard carry case & battery

Humidity Range	0% to 100% RH
Absolute Humidity	0 to 500g/m³, to 208.5gr/ft³
Temperature Range	-30° to +100°C
Resolution	0.1% RH, 0.1°C
Accuracy	±2% RH (+40 to +60%RH) ±3% RH (-20 to +40% and +60 to +80%RH) ±4% RH (0 to +20% and +80 to +100%RH) ±1°C (-20° to +60°C), ±1.5°C (rest of range)
Power	9V PP3 battery
Dimensions	300 x 75 x 50mm
Weight	400g

Price Each

Order Code	Product Code	1+	4+
WX43959	HT-8892	£145.00	£139.20

‡ Special delivery applies. Please call for details

Humidity & Temperature Data Logger



- Two channel humidity and temperature datalogger with 32,700 readings memory
- Compact and easy-to-use dual channel data logger for efficient monitoring of temperature and humidity values
- Ideal for monitoring food, medical product storage, warehousing & distribution, containers, industrial processes, laboratory environments and museums
- Simultaneous display of temperature °C or °F and Humidity in %RH
- Impact-resistant ABS and rubber moulded case
- Large 25mm LCD display
- Displays time and date, current readings, max/min values, recording and logger full indicator
- Memory for 32,700 readings
- Selectable measurement cycle from every 1 second to 24 hours
- LED indicators for alarm and recording status
- Visual alarm in LCD display if user-defined max/min values exceeded
- Low battery indication
- USB interface for set up and data transfer to a PC
- Analysis software runs under Windows 2000, XP or Vista with graphical display of data with zoom facility for detailed views
- Supplied with wall holder, padlock, software, USB cable & battery

Temperature	0 to 100% RH
Range	-40° to +70°C
Resolution	0.1°C
Accuracy	±2°C (-40 to -10°C) ±1°C (-10 to +40°C) ±2°C (+40 to +70°C)
Humidity	±5%RH (0 to 20% & 80 to 100%) ±3.5%RH (20 to 40% & 60 to 80%) ±3%RH (40 to 60%)

Memory	32,700 readings
Power	3.6V ½AA Lithium battery
Dimensions	94 x 48 x 33mm
Weight	115g

Price Each

Order Code	Product Code	1+	3+
WX43961	DT-172	£99.00	£95.04

‡ Special delivery applies. Please call for details

pH Meters

Waterproof Pocket pH Testers



- Other features include an auto-off switch, hold facility, and user replaceable pH electrode with a clogging resistant fibre junction
- Auto temperature compensation & auto calibration at 1 or 2 points with choice of 5 memorised buffers
- The new design waterproof casing with rubberised body floats if dropped in water, and has a pocket clip
- New design pocket tester with simultaneous display of pH & Temperature on a dual level LCD screen
- Auto switch-off and battery condition indicator
- Auto temperature compensation
- Auto calibration

	Accuracy	Range	Resolution
HI-98127	°0.1pH	0.0 to 14.0pH	0.1pH
		0.0 to 60.0°C	0.1°C
HI-98128	°0.5pH	0.00 to 14.00pH	0.01pH
		0.0 to 60.0°C	0.1°C

Price Each

Order Code	Product Code	Description	1+	4+
WX31421	HI-98127	Waterproof pH Meter	£77.01	£74.78
WX39941	HI-98128	Waterproof pH Meter	£75.90	£73.70
WX31393	77400P	Calibration kit (pH4.01 and 7.01)	£11.00	£10.68
WX31408	HI-73127	Replacement pH Sensor	£40.75	£39.57



- Waterproof hand held pH meter designed specifically for ease of use without compromising on accuracy
 ■ Just two buttons are used to operate all the functions on the meters, with on-screen prompts
 ■ Combined pH and temperature probe
 ■ 1500 hours approx. battery life, with battery power check and auto-off facility
 ■ Auto pH calibration at 1 or 2 points with two sets of memorised buffers
 ■ Supplied complete with probe, batteries, buffer sachets, carry case and two-year meter guarantee

Accuracy	Range	Resolution
±0.02 pH	-2.00 to 16.00 pH	0.01 pH
±0.5 to 60°C;	-5.0 to 105°C	0.1°C
±1 to 105°C		

Price Each

Order Code	Product Code	1+	4+
WX31427	HI-991001	Waterproof Meter	£244.48 £237.39
WX31397	HI-1296D	Spare Probe	£127.33 £123.64
WX31407	HI-72911D	Industrial pH Electrode	£117.15 £113.75
WX39940	FC202D	pH Food Electrode	£122.24 £118.70
WX31418	HI-935B00T-I	Protective Rubber Boot	£25.47 £24.73

Conductivity Meters

Waterproof Conductivity/TDS/Temp Testers



- Waterproof hand held pH meter designed specifically for ease of use without compromising on accuracy
 ■ Just two buttons are used to operate all the functions on the meters, with on-screen prompts
 ■ Combined pH and temperature probe
 ■ 1500 hours approx. battery life, with battery power check and auto-off facility
 ■ Auto pH calibration at 1 or 2 points with two sets of memorised buffers
 ■ Supplied complete with probe, batteries, buffer sachets, carry case and two-year meter guarantee

Waterproof pH/Temperature Meter



	Accuracy	Range	Resolution
HI-98311	±2% EC	0 to 3999 µS/cm	1 µS/cm
	±2% TDS	0 to 2000 ppm	1 ppm
	±0.5°C	0 to 60°C	0.1°C
HI-98312	±2% EC	0.00 to 20.00 µS/cm	0.01 mS/cm
	±2% TDS	0.00 to 10.00 ppt	0.01 ppt
	±0.5°C	0 to 60°C	0.1°C

Price Each

Order Code	Product Code	Description	1+	4+
WX31423	HI-98311	Multi-Tester	£74.88	£72.71
WX31424	HI-98312	Multi-Tester	£74.88	£72.71
WX31401	HI-7031	1413 µS/cm Solution 460ml	£14.78	£14.35
WX31402	HI-7032	1500ppm Solution 460ml	£14.78	£14.35
WX31400	HI-7030	12.88mS/cm Solution 460ml	£14.78	£14.35
WX31399	HI-70038P	6.44ppt (at 0.5conv.) 25 x 20ml Sachets	£19.35	£18.79

† Special delivery applies. Please call for details

Tachometers
Tachometer TMRT series

- User-friendly and accurate, utilising laser or contact for measuring rotational and linear speed
 ■ Allows easy and quick non-contact measurement at safe distance from rotating machinery
 ■ Provides large angular range of ± 80° to target, facilitating easy measuring in areas where straight-line access is difficult
 ■ User can select to measure in rpm, rps, m, feet or yards per minute or second, distances or count revolutions, or time interval
 ■ Large inverting LCD display facilitates easy reading even when pointing the unit down into the machinery
 ■ Compact design; easy to use, one-hand operated instrument
 ■ Intrinsically safe (Ex) version has been tested and certified according to the latest ATEX standards

Accuracy	Range	Resolution
±6% of reading	0.001 to 1.999	0.001
± 2 digits	0.01 to 19.99	0.01
	0.1 to 199.9	0.1

Price Each

Order Code	Product Code	Description	1+	3+
WX36064	TMRT-1	Standard Version	£328.03	£317.77
Speed Range: 3-9999 rpm				
WX36065	TMRT-1EX	Intrinsically Safe	£548.69	£532.07
Speed Range: 3-9999 rpm				

Non-Contact RPM -Tachometer



- Easy one-hand operation
 ■ Simply attach a reflector to the object to be measured, and then point the red light beam at the reflector and measure
 ■ Saves mean/maximum value (last reading)
 ■ RPM can be easily measured without contact
 ■ Set also includes:-
 Case
 Batteries
 Reflectors
 Multi-point or timed mean calculation

Specification Table

Probe Type	Optical
Range	"1 - 99
Accuracy	0.02%±
Resolution	0.01 rpm (1-99.9 rpm)
	0.1 rpm (100-999.9 rpm)
	0.1 rpm (1000-9999 rpm)
Operating Temp	0 - 50°C
Power	2 x AA
Dimensions	144 x 58 x 20 mm

Price Each

Order Code	Product Code	1+	4+
WX32674	05630465	£175.35	£170.27

Non-Contact LED Tachometer



This highly effective Non-Contact unit is designed for the engineer who requires an easy to use, high quality, high reliability tachometer to provide accurate RPM measurement.

- Easy to aim beam for quick measurements - brilliant red LED light spot for working in difficult lighting conditions
 ■ Long optical range - 450mm
 ■ Wide optical angle - +/- 70 degrees
 ■ Safe speed checks 1.00 to 60,000 rpm
 ■ Light weight and pocket sized -Dimensions: 145x60x28mm
 Supplied with: reflective tapes, batteries, instructions manual and light protective case

Price Each

Order Code	Product Code	Description	1+	4+
WX42003	ECOTACH	LED Tachometer	£105.00	£101.32



Non-Contact / Mechanical RPM - Tachometer



- Easy one-hand operation
- An optical measurement becomes a mechanical measurement by simply attaching an adaptor for probe tip or surface speed disc
- Measurement of rpm, speeds and lengths
- Testo 470, the ideal combination of optical and mechanical RPM measurement
- Set also includes:-
Transport case
Surface speed disc
Probe tip
Adaptor
Batteries
Reflectors

MODEL

Probe Type Optical Mechanical

Range "1 - 99 999rpm"

Accuracy 0.02%± 0.02%±

Resolution 0.01 rpm (1-99.9 rpm)

0.1 rpm (100-999.9 rpm)

0.1 rpm (1000-99999 rpm)

Operating Temp 0 - 50°C 0 - 50°C

Power 2 x AA 2 x AA

Dimensions 175 x 60 x 28 mm 175 x 60 x 28 mm

Price Each

Order Code	Product Code	1+	4+
WX38698	05630470	£243.60	£236.54

Optical RPM Measurement



- Innovative pocket sized measurement technology
- Optical rpm measurement with LED spot marking
- Includes:-
Batteries (AAA x 2)
Wrist strap
Belt holder
Protective Cap
Calibration protocol

Dimensions (inc cap) 119x46x25mm

Measuring range: 100 to 29,000 rpm Accuracy: ± (0.02% of m.v)

Units: rpm, rps

Price Each

Order Code	Product Code	1+	4+
WX42046	05600460	£135.45	£131.52

Stroboscopes

SKF TKRS 10 Stroboscope



- The SKF TMRS 1 is a portable, easy-to-use stroboscope that allows the motion of rotating or reciprocating machinery to appear frozen, facilitating inspection without stopping the machine
- The bright flash allows better illumination of the application at a distance, giving a wider viewing area
- Flash rate is quick and easy to adjust using the variable dial rate. Allowing the required speed to be reached within a matter of seconds
- Phase shift mode for optimum inspection of gears, rolls, fans, pulleys. The feature of interest can be rotated to the correct position for inspection
- Easy to read LCD display
- Battery powered with long running time per charge (up to 2.5 hrs)
- Includes universal AC adaptor that can be used worldwide
- Technical Specification:-
Flash rate range: 40-12,500 flashes per minute (FPM)
Flash rate accuracy: +/- 0.5 FPM or +/- 0.01% of reading, whichever is greater
Flash setting resolution: 100 to 9999 FPM - 0.1FPM, 10,000 to 12,500 FPM -1FPM
Tachometer range: 40 - 59,000 RPM
Tachometer accuracy: +/- 0.5 RPM or +/- 0.01% of reading, whichever is greater
Flash tube life: 100 million flashes
Flash duration: 9-15 µ sec
Light power: 154 mJ per flash
Battery type: NiMH, rechargeable, removable

Order Code	Product Code	1+	4+
WX60967	TKRS20	£738.31	£715.20

Display: 8 character by 2 line LCD, alpha-numeric

Display update: continuous

Display resolution: 100 to 9999 FPM - 0.1FPM, 10,000 to 12,500 FPM -1FPM

External trigger input: 0-5V TTL type via stereo phono jack

Operating temperature: 10 °C to 40 °C (50 °F to 104 °F)

Price Each

Order Code	Product Code	1+	4+
WX38703	TKRS10	£564.39	£546.72

‡ Special delivery applies. Please call for details

SKF TKRS 20 Stroboscope



NEW

- Stroboscope TKRS 20 with remote flash sensor
- Low energy consuming LED light source lets the rechargeable power pack to typically operate for at least twelve hours
- Bright and powerful flash gives a good target illumination at a distance, with a focused viewing area, and is ideal for outdoor use
- Flash rates of up to 300 000 flashes per minute cover most high speed applications. For routine inspections, the powerful lamp mode is useful
- A remote optical sensor is included enabling the flash rate to be easily triggered, and also enables the stroboscope to be used as a tachometer
- Easy to read LCD display shows user settings, and enables the ten user programmable flash rate memories to be quickly recalled
- Using the optional cable TKRS C1, the TKRS 20 can be connected to a SKF Microlog

Flash rate range 30 to 300 000 flashes per minute (f/min.)

Optical sensor flash rate range 30 to 100 000 f/min.

Flash rate accuracy ±1 f/min. or ±0,01% of reading, whichever is greater

Flash setting and display resolution 30 to 9 999 f/min.; 0,1 f/min., 10 000 to 300 000 f/min.; 1 f/min.

Tachometer range 30 to 300 000 r/min.

Tachometer accuracy ±0,5 r/min. or ±0,01% of reading, whichever is greater

Flash source LED

Flash duration 0,1°-5°

Light power 1 600 lux at 6 000 f/min. at 0,2 m (8 in.)

Power pack type NiMH, rechargeable and removable

Power pack charge time 2-4 hours

Run time per charge 12 hours typical usage

6 hours with optical sensor

Battery charger AC input 100-240 V AC, 50/60 Hz

Display 8 character by 2 line LCD, alphanumeric

Display update continuous

Controls Power, x2, x1/2, phase shift, external trigger, pulselength and memory

External trigger input 0-5 V TTL type via stereo phono jack

EXTL. trigger to flash delay 5 ms maximum

Clock output 0-5 V TTL Type signal via stereo phono jack

Weight 600 g (1 lb, 5 oz.)

Operating temperature 10 to 40 °C (50 to 104 °F)

Storage temperature -20 to +45 °C (-4 to +113 °F)

Price Each

Order Code	Product Code	1+	4+
WX60967	TKRS20	£738.31	£715.20

‡ Special delivery applies. Please call for details



Contact Brammer on 0870 240 2100

Test & Measurement 2059

Light Intensive Stroboscope



- The Pocket Strobo™ hand held stroboscope measures and inspects rotations and vibrations
- It facilitates the measurement of very small objects or in hard to access places
- The energy optimised switching electronics and light-intensive xenon flash lamp facilitate a high light intensity (approx 800 lux)
- High setting accuracy and stability thanks to dynamic setting dial
- Powerful rechargeable battery pack for minimum 1 hour operation time over the frequency range
- Automatic trigger to synchronise flash sequence
- Comes with transport case, recharger with 4 country adaptors and trigger signal connector

Specification Table

Range	+30 to +12500 rpm
Accuracy	±0.01% of mv
	±1 digit (+30 to 12500rpm)
Resolution	1 rpm (+30 to +12500rpm)
Illumination	800 Lux (at distance of approx 20cm)
Operating Temp	0 - +40°C
Dimensions	240 x 65 x 50 mm

Price Each

Order Code	Product Code	1+	4+
WX38699	£05634760	£721.98	£701.05

‡ Special delivery applies. Please call for details

HVAC Instruments

Fluke HVAC Pro



FLUKE

- Two-in-one infrared and contact thermometer (K-type thermocouples) for HVAC/R professionals
- Used for scanning, electrical maintenance, electric motors, HVAC/R systems, steam systems, ducts, motors, radiant heating, pipes, corroded connections and wires
- Measurements can be made at a safe distance and no need for a ladder
- Preserves investment because it's compatible with existing K-type thermocouple probes
- Included velcro pipe probe and differential temperature function obtains quick, accurate measurements for superheat and sub-cooling. Previously, a two channel contact thermometer would have been required for this
- Light - just 12 ounces (34 g) and portable
- Single point laser sighting shows approximate centre of measurement area
- Min, Max, and Dif functions provide fast data to identify problems
- Three measurement techniques:
 - Spot: determine the absolute surface temperature of an object
 - Temperature differential: compare two spot measurements against each other
 - Scanning: detect changes along a wide or continuous region target
- Durable plastic storage case, Thermocouple K Velcro pipe probe and 2 AA batteries all included

Model Fluke 561

Temperature range -40 to 550°C
(-40 to 1022°F)

Display Resolution 0.1°C (0.1°F) of reading

D:S (Distance to spot size) 12:01

Easy Emissivity Selector Adjustable with three settings:

Low (0.3) Medium (0.7) High (0.95)

Display Accuracy ±1.0% of reading

[Assumes ambient operating temp of 23°C(73°F) to 25°C(77°F)] ±1% of reading or ±1°C (±2°F)

below 0°C/32°F / ±1°C (±2°F) ±0.1°C/1°F

Response time 500 mSec (95% of reading)

Repeatability ±0.5% of reading or ±1°C (±2°F) whichever is greater

Spectral response 8 µm to 14 µm

Laser sighting Single point laser

Laser shutoff Laser turns off above ambient temperature of 40°C (104°F)

Laser power Class 2(l) operation; Output <1mW / wavelength 630-670 nm

Relative humidity 10% to 90% RH non-condensing at <30°C (86°F)

Battery life (alkaline) 12 hours

Display hold 7 seconds

Operating temperature 0°C to 50°C

32°F to 120°F

MAX/MIN/DIF temperatures Yes

Thermocouple Type K mini adapter input YES compatible with standard K type probes with mini-connector.

Thermocouple Type K Velcro Pipe Probe YES with a temperature range of 0°C to 100°C and accuracy of ±2.2°C

Thermocouple Type K probe total length 102 cm (40 in)

Price Each

Order Code	Product Code	1+	4+
WX38635	£05634760	£131.00	£126.77
WX38646	£05634761	£21.00	£20.42

‡ Special delivery applies. Please call for details

Air Flow Meters

Mini Anemometer



testo

- Measures air velocity, volume flow and temperature
- m/s and m³/h (volume flow calculation 0 to 99,990 m³/h)
- 180° swivel head for easy measurement readings
- Telescopic extendible probe, up to 30cm
- Duct holder and multi-function clip for quick positioning
- Includes:- Duct holder, multi-function clip and battery

Accuracy	Range	Resolution
± (0.1 m/s ±5% of mv) (00 to +10 m/s- to +2m/s)	0 to +10 m/s	0.1°C
± (0.3 m/s ±5% of mv) (-20 to +50°C)	-20 to +50°C	0.01 m/s (+2.1 to +10m/s)

Price Each

Order Code	Product Code	1+	4+
WX42051	05604053	£112.35	£109.09

Anemometer



AMPROBE

- Continuous moving average for up to 2 hours
- Long extended flexible cord for remote vane access
- MIN/MAX/AVG reading on a single point
- Measurement of rpm, speeds and lengths
- Air velocity average for multiple points
- Air flow average for multi-point
- Data hold of both readings
- Auto Power Off function (Bypass possible)
- RS232 interface output with optional software and cable
- Deluxe hard carrying case

Function	Range	Resolution	Accuracy
Air Velocity			
m/s (meters per sec)	0.40 m - 25 m/s	0.01 m/s	+/- 2%
ft/min (feet per minute)	125 ft - 4900 ft/min	1 ft/min	+/- 2%

Air Flow

CMS (Cubic mtrs per sec) 0.01m - 99.99m³/sec 0.01 0 - 9.999 m

CFM (Cubic ft per min) 1 ft - 9999 ft³/min 1.0 0 - 9.999 ft

Air Temperature

°C (°F) 0°C - 50°C (32-122°F) 0.1°C/°F +/- 0.8°C (1.5°F)

Price Each

Order Code	Product Code	1+	4+
WX38664	05604050	£187.00	£180.97
WX38666	05604051	£25.00	£24.19

Large-Area Vane Anemometer



- The compact testo 417 anemometer with built-in flow/ temperature vane Ø 100 mm to measure flow speed, volume flow and temperature
- Accurate volume flow calculation thanks to easy input of duct area
- In addition, it is easy to switch to the current temperature reading
- Timed and multi-point mean calculation provide information on mean volume flow, flow speed and temperature readings
- Min/max values can also be shown in the display
- Display light
- Built-in Ø 100mm vane

Storage temperature -40 to +85 °C
 Operating temperature 0 to +50 °C
 Battery type 9V block battery 6F22
 Battery life 50 h
 Weight 230 g
 Dimensions 277 x 105 x 45 mm

Price Each

Order Code	Product Code	1+	4+
WX38693	05604170	£309.75	£300.77

‡ Special delivery applies. Please call for details

Compact Thermal Anemometer



- The compact anemometer, testo 425, with permanently attached thermal flow probe and telescopic handle
- Volume flow is shown directly in the display. Exact volume flow calculation thanks to easy input of duct area
- You can also switch to the current temperature reading
- Multi-point and timed mean calculation
- Min/Max and Hold function included
- Timed and multi-point mean calculation provide information on mean volume flow, flow speed and temperature reading
- Display light

Storage temperature -40 to +85 °C
 Operating temperature -20 to +50 °C
 Battery type 9V block battery
 Battery life 20 h
 Weight 285 g
 Dimensions 182 x 64 x 40 mm

Function	Range	Accuracy
Air Velocity: m/s (meters per sec)	0.4 to 20 m/s	± (0.2m/s + 2% of m.v.)

Temperature	°C / °F	± 0.5°C
Humidity (Testo 410-2)	0 to 100%rh only	± 2.5%

Price Each

Order Code	Product Code	1+	4+
WX42052	05604101	£100.80	£97.88
WX42053	05604102	£156.45	£151.92

Vane Thermo Anemometer



- Measures volume/velocity and temperature
- The remote vane thermo-anemometer measures air velocity, airflow volume and temperature
- This velocity/volume thermo-anemometer is rich in functions with data hold, min/max hold, averaging and memory for area sizes
- Excellent for ventilation surveys, air conditioning, heating and environmental monitoring
- Measures air velocity in m/s, ft/min, km/h, knots & mph
- Measures volume in m³/min (CMM) & ft³/min (CFM)
- °C/F (switchable) temperature via a sensor in the centre of the vane
- Impact-resistant ABS case with detachable 64m Ø vane on 1.1m cable
- 58mm backlit LCD display with large digits and function indicators
- Data hold & max/min functions
- Data hold & max/min hold for temperature
- Average multiple readings for velocity or flow volume for up to 20 readings
- Volume measurements by entering the area of the duct or grille being measured
- 16 memory locations for area sizes (8 CFM, 8 CMM)
- Auto off and low battery indicator
- Standard 1/4" camera bush for tripod mounting
- Supplied with hard carry case & battery

Range	m/sec	ft/min	mph	km/hr	knots	m³/min	ft³/min
Minimum	0.4	80	0.9	1.4	0.8	0	
Maximum	30	5900	67	108	58	999.90	
Resolution	0.01	1	0.1	0.1	0.1		
Accuracy	±(3%+0.2+40)		+0.4	+0.8	+0.4		

Temperature Range -10 to +60°C, 14 to 140°F
 Accuracy ±2°C/±4°F

Power 9V PP3 battery
 Dimensions 203 x 75 x 50mm
 Weight 425g

Price Each

Order Code	Product Code	1+	3+
WX43962	‡ AVM-8893	£135.00	£129.60

‡ Special delivery applies. Please call for details

**Easy ordering
by phone, fax,
email, web or
via your local
Brammer Sales
and Service
Centre**

Wind, Air Flow, Temperature & Humidity



- Pocket sized measurement technology combining wind, air velocity, temperature and humidity measuring device in one unit.
- Integrated 40mm vane
- Times mean value calculation
- Windchill factor calculation for outdoor areas
- Measurement units include m/s, km/h, mph, fpm, beaufort and knots

Testo 410-1 Wind or Air velocity and temperature

Testo 410-2 Wind or Air velocity and temperature and humidity

Hot Wire USB Logging Anemometer



- This hot wire thermal anemometer is ideal for low air velocity and volume measurement
- The slim plug in telescopic hotwire probe extends from 0.3m to 1m (inc handle) has a probe sensor head 9mmØ and is ideal for grill hoods and diffusers
- It is excellent for ventilation surveys, air conditioning, clean rooms, flow hoods, air balancing and environmental monitoring. USB interface for real time transfer of readings to a PC.
- 0.1 to 25m/sec x 0.01
- Measures air velocity in m/s, ft/min, km/h, knots & mph
- Measures air volume in m3/min or f3/min
- Measures temperature °C, °F
- 58mm LCD display with Backlight and function indicators
- Data Hold & Min/Max for airflow and temperature
- Low Battery indicator
- Auto Power Off, can be user disabled
- USB interface for real time transfer of readings to a PC
- Mean point (average) over displayed elapsed time
- Standard 1/4" camera bush for tripod mounting
- Supplied with USB connection cable, software, hard carry case, telescopic hot wire probe & battery
- Dimensions 210 x 75 x 50mm unit 0.3 x 1m probe

Range	m/sec	ft/min	mph	km/hr	knots	m ³ /min
Minimum	0.1	20	0.2	0.3	0.2	0
Maximum	25	4925	55.8	90	48.5	999.90
Resolution	0.01	1	1	0.1	0.1	
Accuracy	±5%					
Temp Range	0 to 50°C, 32 to 122°F					
Accuracy	1°C/1.8°F					
Power	9V PP3 Alkaline Battery					

Price Each

Order Code	Product Code	1+	3+
WX53556 ‡	AVM-8880	£195.00	£187.20

‡ Special delivery applies. Please call for details

Air Leak & Steam Trap Checker

Ultraprobe 100 - Analogue



- The Ultraprobe® 100 is a practical tool for leak detection
- Detects the ultrasound created by compressed air/gas leaks
- Use whilst plant in full operation
- Detect faulty steam traps
- Ultrasound is very directional
- Eight position sensitivity dial
- Bar graph display
- Supplied with headphones and carry case
- Warrantied for five years
- Other models available including ATEX

Air leaks in industry are costly with around 30% of all the air produced in the UK is wasted as leaks. Generation of compressed air equates to 10% of the total industrial electricity used and just one 3mm hole could be costing over £600 a year in wasted energy. Ultraprobe equipment can effectively reduce your energy bills by locating and engineers fixing air leaks.

Price Each

Order Code	Product Code	1+
WX43963 ‡	ULTRAPROBE-100SC	POA

‡ Special delivery applies. Please call for details

Ultraprobe 3000 - Digital



- Ultraprobe that's versatile enough to cut energy waste and improve uptime while saving money, and improving the environment!
- Detects the ultrasound created by compressed air/gas leaks
- Digital display – db reading
- 400 memory locations
- Supplied with software to cost leaks
- Rechargeable battery
- Used whilst plant in full operation
- Ultrasound is very directional
- Detect faulty steam traps
- Supplied with headphones and carry case

Price Each

Order Code	Product Code	1+
WX43964 ‡	ULTRAPROBE-3000	POA

‡ Special delivery applies. Please call for details

Price Each

Order Code	Product Code	1+
WX53574	009-7421/R	Cygscope R £1,435.00
WX53575 ‡	009-7422/RD	Cygscope RD £2,030.00

‡ Special delivery applies. Please call for details

Ultrasonic Leak Detector TMSU 1



Cygscope R & RD - Ultrasonic Listening Device



- 2 Models of the CygScope
- CygScope R is a analogue ultrasonic listening device
- Detects leaks that cost money easily, quickly and accurately
- Simple to use, low cost yet reliable system to reduce your energy



The TMSU 1 is suitable for detecting, tracing and diagnosing the source of all kinds of leaks, such as compressed air, gases, steam and vacuum systems. It can also be used to verify the correct operation of steam traps. It works like a microphone, but is sensitive only to high frequency ultrasound. The sensor transforms then the ultrasound into an audible frequency that can be heard through the headphones. The sensitive piezoelectric crystal in the sensor allows the end user to quickly guide the instrument to the loudest point which helps locate the leak location.

- Controls; Continuous or non-continuous operation switch. Silicone rubber button to control stop-start non-continuous operation and volume adjustment
- Amplification; 7 levels; 20, 30, 40, 50, 60, 70 and 80 dB
- Ultrasound Sensor; Open sensor with a 16 mm (1/2 in Ø) diameter (19 mm - 3/4 in Ø - exterior), central frequency of 40kHz
- Detected frequencies; 38,4 kHz, \pm 2 kHz (-3 dB)
- Audio output; Stereo jack connector of 6,35 mm (1/4 in) (use only the headset supplied with the unit)
- Power; Two alkaline AA batteries, 1.5 V. Rechargeable batteries can also be used but the usage time will be reduced
- Usage time; \pm 20 hours. This varies based on: including the charge of the battery in the detector, the level of amplification used and the quality of the batteries
- Body; Made with machined and assembled sheets of high impact polystyrene, shock resistant
- Dimensions; Body: 170 x 42 x 31 mm (6,70 x 1,65 x 1,22 in), flexible tube length: 400 mm (15,75 in)
- Weight; 412 grams with the batteries (14,53 oz)
- Operating temperature range; From -10° C to + 50° C / 14° F to 122° F

Price Each

Order Code	Product Code	1+
WX51151 ‡	TMSU-1	£861.33

‡ Special delivery applies. Please ask for details

Ultrasonic Leak Detection System and Stethoscope



- The UltraPro AG500 is a powerful ultrasonic leak detector and electronic stethoscope
- The system is used in construction, maintenance and manufacturing wherever precision gaseous leak detection or diagnostics are required
- UltraPro uses ultrasound technology to sense frequencies ranging from 18 to 42 kHz, which are converted into an audible sound
- The system is used to locate leaks in any gaseous system and to troubleshoot moving assemblies such as bearings, injectors, solenoids and valves
- UltraPro features a unique automatic gain control which filters the signal to provide the best signal-to-noise ratio, suppressing background noise and pinpointing leaks.
- The AG circuit simplifies operation, removing complicated adjustment knobs and filter switches
- UltraPro offers superior electronics with rugged industrial packaging and a protective rubberized case

Features:

- Simple operation
- 10 element LED bar-graph display
- Industrial rubber holster
- Air and contact probes
- Audio output with volume control

Common UltraPro Applications:

- Steam Traps
- Vacuum/Air Leaks
- Bearings/Valves
- Pressure Leaks
- Water Leaks

Specification

- Power: 9volt Battery
- Battery Life: (typical) 20 hrs (continuous)
- Displays: 10 element LED bar-graph.
- Frequency Response: (kHz) 36-44
- Audio Output: (kHz) 0 to 4
- Construction: ABS and anodised aluminum with rubber holster
- Dimensions: (mm) 150 x 100 x 38
- Weight (g) 300

Price Each

Order Code	Product Code	1+
WX53609 ‡	ULTRAPRO-AG500	£718.77

‡ Special delivery applies. Please ask for details

Gas Monitoring

C090 Carbon Monoxide Meter



NEW

- A rapid responding carbon monoxide meter, ideal for checking safety
- A beeper gives audible indication, speeding up with CO concentration and becoming a continuous tone above 200 ppm.
- Max and Hold buttons allow one reading (or the highest) to be displayed over a period of time.
- Display: 3 1/2 digit liquid crystal display (LCD) with maximum reading of 1999 ppm
- Operating Environment: 0°C to 40°C (32°F to 105°F) at 15% to 90% relative humidity
- Storage Temperature: -20°C to 60°C (-4°F to 140°F), 0 to 80%
- R.H. with battery removed from meter
- Response Time: <70 sec to 90% of reading
- Initial Accuracy: \pm 5% of reading \pm 5ppm
- Average Measurement Capacity: (A reading is taken every 7 seconds and displays the average on screen)

- Normal Measurement Capacity: (current reading shown on screen)
- Supply: Standard 9V battery (PP3, NEDA 1604, IEC 6F22 006P) (included)
- Low battery indication
- Dimensions: 189 x 67 x 35mm
- Weight: 193g approx incl battery

Price Each

Order Code	Product Code	1+	3+
WX60968	C090	£128.09	£122.97

Pressure Meters

Differential Pressure Measurement



- Measuring range of 0 to 100 mbar
- Temperature compensation
- Magnetic base for hands free instrument mounting
- Flow velocity measurement
- Air density compensation

Includes:-

- Batteries (AAA x 2)
- Wrist strap
- Belt holder
- Protective Cap
- Dimensions (inc cap) 119x46x25mm

Accuracy	Units
\pm 0.03 mbar (0 to 0.30mbar)	hPa, mbar, Pa, mmHg, inHg, 0, psi, m/s, fpm

\pm 0.05 mbar (0.31 to 1 mbar)

\pm (0.1 mbar + 1.5% of m.v.)

(1.01 mbar to 100 mbar)

Order Code	Product Code	1+	4+
WX42047	05600510	£128.10	£124.39

**Need advice?
FREE technical
support at
every Brammer
branch**



Contact Brammer on 0870 240 2100

Test & Measurement 2063



- Absolute pressure accuracy \pm 3mbar
- Calculation of barometric pressure
- Barometric altitude measurement

Includes:-

- Batteries (AAA x 2)
- Wrist strap
- Belt holder
- Protective Cap
- Calibration protocol

Dimensions (inc cap) 119x46x25mm

Measuring range: 300 to 1,200 mbar Accuracy: \pm 3.0 mbar

Units: hpa, mbar, Pa, mmH₂
0, mmHg, inH₂
0, psi, m, ft

Price Each

Order Code	Product Code	1+	4+
WX42048	05600511	£156.45	£151.92

Measuring Tools

Calibration Available



- Calibration is an essential part of the activities of any company if quality control is taken seriously
- Measurement to a consistently high level of accuracy can only be achieved if instruments are periodically calibrated against traceable standards
- Brammer can provide pre-UKAS calibration certification on many newly purchased products to meet this requirement in our supplier's environmentally controlled calibration laboratories
- So where you see the above logo featured on certain products; Brammer can offer a fully calibration certified version of that product

Reference

Zeus precision charts



Roebuck



- Revised metric edition
- Covers and all pages have a plastic finish, so that they will not pick up dirt, oil, etc easily
- Contains data charts and reference tables for all engineering trades

Price Each

Order Code	Product Code	1+	6+
WX60969	231801	£4.71	POA

Rules, Tapes and Measures

Rules

Standard steel rules



Roebuck



- EC class 1
- Manufactured from fine quality steel, hardened and tempered with a satin finish
- "D" end
- Graduated both sides
- Front 16ths, 32nds, 64ths, 10ths, 20ths, 50ths and 100ths
- Reverse side 0.5 and 1.0 millimetres to BS 4372//1996

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX60970	233620	150mm / 6"	19mm / 3/4"	£4.48	£4.26
WX60971	233621	300mm / 12"	25mm / 1"	£7.76	£7.37

Metric/English steel rules



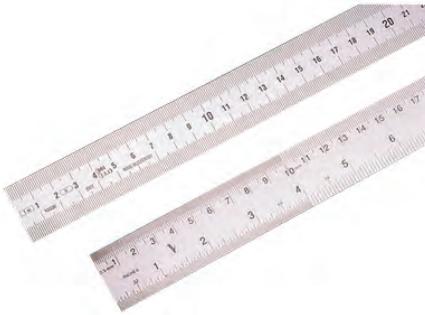
Roebuck



- EC Class 2
- Top edge: 0.5mm and 1mm, figured in cm
- Bottom edge: 16ths, 32nds, 64ths, figured in inches

Price Each

Order Code	Product Code	Length Metre	Length, Inches	Width x Thickness	1+	6+
WX60972	032125	1 m	40 "	30 x 1 mm	£44.20	£41.99
WX60973	032126	1.5 m	60 "	30 x 1 mm	£88.16	£83.75
WX60974	032127	1.5 m	60 "	40 x 2 mm	£146.19	£138.88
WX60975	032128	2 m	80 "	30 x 1 mm	£89.58	£85.10



Roebuck

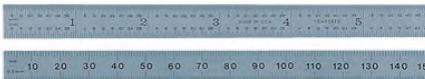


- EC Class 2
- Both edges: 1mm, figured in cm

Price Each

Order Code	Product Code	Length	width x Thickness	1+	6+
WX60976	032120	1 m	30 x 1 mm	£46.59	£44.26
WX60977	032121	1.5 m	30 x 1 mm	£72.16	£68.55
WX60978	032122	1.5 m	40 x 2 mm	£154.10	£146.40
WX60979	032123	2 m	30 x 1 mm	£103.33	£98.16
WX60980	032124	2 m	40 x 2 mm	£200.38	£190.36

Metric square end rules



Roebuck

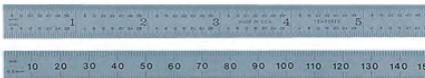


- Manufactured from high quality steel and fully hardened and tempered with a non-glare satin chrome finish
- Graduations etched from precise glass masters for repeated accuracy
- Specifications: Rules graduated both sides: 1.0mm & 0.5mm
- Conform to EEC-Class
- Rigid and 1.0mm thick

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX60981	2017359	150 mm	19 mm	£7.21	£6.85
WX60982	2017360	300 mm	25 mm	£13.38	£12.71
WX60983	2017361	450 mm	29 mm	£22.22	£21.11
WX60984	2017362	600 mm	29 mm	£31.79	£30.20
WX60985	2017363	1000 mm	32 mm	£87.67	£83.29

English metric square end rules



Roebuck



- Square end rules are manufactured from hardened and tempered high quality British steel and conform to BS 4372-1968 for accuracy
- Etched from precise glass masters with satin chrome finish and blackened graduations for wear resistance and non-glare viewing
- Front sidemarked 64ths and 32nds figured in inches
- Reverse side marked in 1.0mm and 0.5mm

Price Each

Order Code	Product Code	Description	1+	6+
WX60986	030550	150mm / 6in	£7.23	£6.87
WX60987	030551	300mm / 12in	£11.72	£11.13
WX60988	030552	450mm / 18in	£20.72	£19.68
WX60989	030553	600mm / 24in	£29.93	£28.43
WX60990	030554	900mm / 36in	£88.75	£84.31

Black chrome rules



Roebuck NEW

- Manufactured from high quality British steel
- The rulers are hardened and tempered and have a satin chrome finish for durability and non-glare viewing
- "D" End style
- All rules are supplied in individual plastic wallets
- Front side is graduated in 10ths, 16ths, 20ths, 32nds, 50ths and 100ths
- reverse side graduated in 0.5mm and 1.0mm

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX60991	030144	15 mm / 6"	19 mm	£6.66	£6.33
WX60992	030145	300mm / 12"	25 mm	£11.44	£10.87

Tin coated steel rules



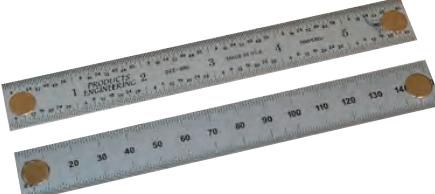
Roebuck NEW

- Titanium nitride coated, RC80 hardness, for exceptional wear and visibility
- Long lasting, hard wearing, non-glare finish
- Scratch resistant microfine graduations with excellent clarity and contrast, 30% harder than standard

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX60993	030146	150mm / 6"	19 mm	£15.08	£14.33
WX60994	030147	300mm 12"	25 mm	£26.57	£25.24

Magnetic steel rules



Roebuck NEW

- Magnetic rules contain encapsulated button magnets and are suitable for fixing to machine slides, guillotine blades and sheet metal
- Manufactured from hardened and tempered high quality British steel, they conform to BS 4372-1968 for accuracy
- Etched from precise glass masters with satin chrome finish and blackened graduations for wear resistance and non glare viewing
- Front side marked 64ths and 32nds: figured in inches
- Reverse side marked 1.0mm and 0.5mm: figured in millimetres

Price Each

Order Code	Product Code	Description	1+	6+
WX60995	030458	150mm / 6in	£16.51	£15.68
WX60996	030459	300mm / 12in	£33.32	£31.65
WX60997	030460	600mm / 24in	£63.14	£59.98
WX60998	030461	900mm / 48in	£132.90	£126.26
WX60999	030469	1200mm / 48in	£222.95	£211.80

Stainless Steel Rules

Metric

Metric/Imperial Steel Rules



- Metric and Imperial Steel Rules
- Flexible and rigid options in 150mm and 300mm options
- 1mm Graduation

Price Each

Order Code	Product Code	Description	1+	3+
WX20343	182-105	150mmx-19mm, Rigid	£6.83	£6.63
WX20344	182-125	300mmx-25mm, Rigid	£13.13	£12.74
WX20345	182-205	150mmx-12mm, Flexible	£6.83	£6.63
WX20346	182-225	300mmx-12mm, Flexible	£11.87	£11.51

Stainless Steel Individual Rules



- Precision rule manufactured from hardened stainless steel matt chrome plated
- Permanently etched black graduations for long service life
- Metric and imperial measurements
- Supplied in vinyl wallet

Price Each

Order Code	Product Code	Description	1+	6+
WX20783	12613	150mm	£4.10	£3.86

Length: 150 mm, Graduation: 0.5 mm, Range: 150mm

Rustless Steel Rules

Metric and Imperial Rustless Steel Rule

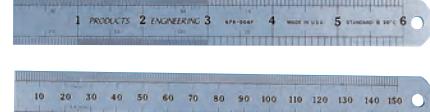


- Engineers precision steel rule
- Fully graduated in metric and imperial sizes
- Class 1 equivalent
- Metric: 0.5mm
- Imperial: 16ths/32nds/64ths/10ths/20ths/50ths/100ths

Price Each

Order Code	Product Code	Description	1+	10+
WX21066	0-35-400	150mmx19mm	£6.82	£6.44
WX21067	0-35-401	300mmx25mm	£11.48	£10.84
WX21068	1-35-402	600mmx25mm	£22.38	£21.14
WX21069	0-35-406	1000mmx25mm	£28.87	£27.27
WX21070	0-35-432	150mmx12.5mm	£6.82	£6.44
WX21071	0-35-433	300mmx12.5mm, flexi	£11.48	£10.84

Metric/Imperial Steel Rules



- Rules conform to BS 4372-1968
- Satin chrome finish offers non-glare viewing and resistance to wear
- Front side: Top scale: 10ths, 20ths, 50ths, 100ths. Figured in inches
- Front side: Bottom scale: 16ths, 32nds, 64ths. Figured in inches
- Reverse side: Top scale: 1.0mm. Figured in millimetres
- Reverse side Bottom scale: 0.5mm. Figured in millimetres

Price Each

Order Code	Product Code	Description	1+	3+
WX31800	678-006F	150x19mm	£6.84	£6.48
		Type: Rigid		
WX31801	678-012	300x25mm	£11.59	£10.98
		Type: Rigid		
WX31802	678-024	600x29mm	£33.44	£31.68
		Type: Rigid		
WX31804	851-006F	150x12.5mm	£6.94	£6.57
		Type: Flexible		
WX31805	851-012F	300x12.5mm	£11.59	£10.98
		Type: Flexible		

Straight Edges

Graduated



Roebuck NEW

- A range of general purpose carbon steel straight edges
- Graduated in mm's on bevel edge

Price Each

Order Code	Product Code	Length	Width x Thickness	1+	6+
WX61000	031559	500 mm	40 x 5 mm	£57.05	£54.20
WX61001	031560	1000 mm	40 x 5 mm	£110.01	£104.51
WX61002	031561	2000 mm	40 x 5 mm	£237.68	£225.80

General purpose straight edge

Ungraduated



Roebuck

NEW

- A range of general purpose carbon steel straight edges

Price Each

Order Code	Product Code	Length	width x Thick- ness	1+	6+
WX61003	031555	500 mm	40 x 5 mm	£38.10	£36.20
WX61004	031556	1000 mm	40 x 5 mm	£73.10	£69.45
WX61005	031557	1500 mm	40 x 5 mm	£114.82	£109.08
WX61006	031558	2000 mm	40 x 5 mm	£151.16	£143.60

Straight Edges



- Steel straight edges manufactured to DIN 874
- Marked with supporting points on side face
- Both working surfaces & side faces are fine ground
- Each straight edge is individually serialised

Price Each

Order Code	Product Code	Description	1+	2+
WX41989	59-010-050	500x30x6mm	£49.02	£46.44
WX41990	59-010-075	750x40x8mm	£77.90	£73.80
WX41991	59-010-100	1000x40x8mm	£95.95	£90.90
WX41992	59-010-150	1500x50x- 10mm	£190.00	£180.00
WX41993	59-010-200	2000x60x- 12mm	£253.65	£240.30

Tapes

Tape Measures Short Series

Hi-vis tape measures



Roebuck

NEW

- Distinct high visibility colour makes it easier to find on-site
- Compact design for ease of use
- Durable impact resistant case with tape return bumper
- Tylon coated blade to ensure superior wear resistance compared to standard lacquered blades
- True zero end hook attached by 2 rivets
- Handy carrying strap and belt clip included
- Class II accuracy

Price Each

Order Code	Product Code	Colour	Length	Width	1+	6+
WX61007	231707	Green	5m/16'	19 mm	£3.38	£3.21
WX61008	231708B	Orange	5m/16'	19 mm	£3.38	£3.21

Workshop tape measures



Roebuck

NEW

- Compact design for ease of use
- Durable impact resistant case with tape return bumper
- Tylon coated blade to ensure superior wear resistance compared to standard lacquered blades
- 25mm wide blade option stands out over 2m
- True zero end hook attached by 2 rivets
- Handy carrying strap and belt clip included
- Class II accuracy

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX61009	231690	3m/10'	13 mm	£2.20	£2.09
WX61010	231695	5m/16'	19 mm	£3.70	£3.52
WX61011	231696	8m/26'	25 mm	£7.00	£6.65

Professional tape measures



Roebuck

NEW

- Chrome plated, impact resistant plastic case with tape return bumper
- Compact design for ease of use
- Tylon coated blade to ensure superior wear resistance compared to standard lacquered blades
- 25mm blade option stands out over 2m
- True zero end hook attached by 2 rivets
- Handy carrying strap and belt clip included
- Class II accuracy

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX61012	231697	3m/10'	13 mm	£5.20	£4.94
WX61013	231699	5m/16'	19 mm	£8.00	£7.60
WX61014	231700	8m/26'	25 mm	£12.20	£11.59
WX61015	231706	10m/33'	25 mm	£14.00	£13.30

Soft grip tape measures



Roebuck

NEW

- All round grip for extra control and durability
- Tape return bumper
- Tylon coated blade to ensure superior wear resistance compared to standard lacquered blades
- 25mm wide blade option stands out over 2 metres
- True zero end hook attached by 2 rivets
- Handle carry strap and belt clip
- Class II accuracy

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX61016	231728	5m/16'	19 mm	£4.00	£3.80
WX61017	231729	8m/26'	25 mm	£7.50	£7.13

Measuring Tapes



Roebuck

NEW

- Stainless Steel Case plus black Rubber
- Two Stops
- Magnetic Tip
- MID Blade (11)
- Nylon Coated Blade
- Cloth Wrist Strap

Price Each

Order Code	Product Code	Tape Length	1+	6+
WX61018	2521608	3 Metre	£6.60	£6.27
WX61019	2521609	5 Metre	£9.50	£9.03
WX61020	2521610	8 Metre	£15.10	£14.35

Tape Measures

Magnetic Tip Stainless Steel Tape Measures



BAHCO

- The top models of pocket tape measures are fitted with a magnetic tip and have an anti-reflective coating on the scale for precise reading
- The Bahco MTS is also made entirely of rust-proof materials so that it can be used in harsh environments
- Bahco's new tape measures, the company's first ever, are aimed at professionals
- Many of Bahco's measuring tapes have graduations on both sides of the blade for precise reading of the scale in all situations and the magnetic tip makes building work with metal structures, for example, easier
- You only need to attach the tip to a metal frame and then pull the tape out to the other measurement point
- It is also possible to pick up lost metallic objects such as screws and the like that have been dropped using the tape's magnetic tip
- The blade is also stable when being pulled out thanks to its much greater width
- The new tape measures are of "Bahco class" and have many new and innovative features which stand out
- Automatic blade locking for quick and easy measuring
- Fingertip, sensitive control for blade retraction
- Blade width 25mm

Price Each

Order Code	Product Code	Description	1+	6+
WX45614	MTS-5-25-E	5M	£21.55	£20.28
WX45615	MTS-8-25-E	8M	£26.61	£25.05

Tape Measures



STANLEY

- Rubber over-moulded strip for comfort and grip
- High impact ABS housing for strength and durability
- Forward slide lock mechanism
- Versatile Tru-Zero end hook with 2 and 3 rivet assembly
- Nylon coated blade
- Tape sizes:
 - 3m tape: (10ft) x 12.7mm
 - 5m tape: (16ft) x 19mm
 - 8m tape: (26ft) x 25mm

Price Each

Order Code	Product Code	Description	1+	6+
WX39944	0-30-686	3m (10ft)	£3.20	£3.02
WX35184	0-30-696	5m (16ft)	£5.04	£4.76
WX35182	0-30-656	8m (26ft)	£9.63	£9.10

Standard Tape Measures



IRWIN Industrial Tools NEW

- Plastic case with Pro-Touch grip
- Sliding lock
- Acrylic coated blade
- Blade Stand out 3m/10ft 1.2m
- Blade Stand out 5m/16ft 1.8m
- Blade Stand out 8m/26ft 2.3m

Price Each

Order Code	Product Code	Blade Length	Blade Width	1+	6+
WX61021	10508055	3m/10ft	13mm	£2.36	£2.22
WX61022	10508056	5m/16ft	19mm	£3.82	£3.59
WX61023	10508057	8m/26ft	25mm	£7.69	£7.24

Also see our Power Tools section



Softech Tape



- Soft, comfortable outer casing
- Pause button on rear for easy control
- Hard wearing nylon coated blade
- Wide blade for great standout
- Tape sizes:
 - 5m tape: (16ft) x 19mm
 - 7.5m tape: (25ft) x 25mm

Price Each

Order Code	Product Code	Description	1+	4+
WX35093	T3442-16	5m Tape	£5.66	£5.33
WX35094	T3442-25	7.5m Tape	£9.77	£9.19

Professional Tape Measures



IRWIN Industrial Tools NEW

- Plastic case with full Pro-Touch grip
- Fast lock blade hold
- Nylon coated blade
- 2x life of Standard Irwin blade coating
- Double sided Imperial/Metric blade print
- Hook magnets
- Extended length of hook panel for durability

- Blade Stand out 3m/10ft 1.4m
- Blade Stand out 5m/16ft 1.8m
- Blade Stand out 8m/26ft 2.3m

Price Each

Order Code	Product Code	Blade Length	Blade Width	1+	6+
WX61024	10507793	3m/10ft	16mm	£5.70	£5.37
WX61025	10508062	5m/16ft	19mm	£9.73	£9.16
WX61026	10508063	8m/26ft	25mm	£11.43	£10.76

FISCO

- Tough, ergonomic case with rubber-like outer casing
- Automatic blade return with snake-spring bump stop for added blade and end-hook protection
- Detachable belt clip
- Self-zeroing end-hook
- Belt clip
- Fisco products are made in the UK

Price Each

Order Code	Product Code	Description	1+	6+
WX45617	FISCO-TKC3ME	3m/10ft	£3.15	£2.97
WX45618	FISCO-TKC5ME	5m/16ft	£5.71	£5.38
WX45619	FISCO-TKC8ME	8m/26ft	£9.55	£8.98

Powerlock BladeArmor™



STANLEY

- BladeArmor™ coating on the first 6" maximizes durability of hook end
- Chrome plated die-cast case
- Entire blade coated with Mylar® polyester film for added durability
- True zero hook - compensates accurately for internal and external measurements
- Three-rivet, corrosion-resistant hook moves for accurate inside/outside measurements - 40% stronger than a 2 rivet hook construction
- Forward blade lock design simplifies locking and unlocking the blade
- Class II accuracy
- Positive blade lock
- Belt clip

Price Each

Order Code	Product Code	Description	1+	6+
WX38689	0-33-526	8m (26ft)	£13.40	£12.66

Powerlock Tapes



STANLEY

- Chrome plated plastic case
- Positive easy locking
- Mylar coated blade for long life
- Tru-Zero hook for accurate readings
- Supplied complete with belt clip
- Tapes give metric and imperial readings
- Class II accuracy
- Tape sizes:
 - 3m Tape: (10ft) x 12.7mm
 - 5m Tape: (16ft) x 19mm
 - 10m Tape: (33ft) x 25mm

Price Each

Order Code	Product Code	Description	1+	6+
WX42015	0-33-523	3m Tape	£5.86	£5.53
WX43975	0-33-553	5m Tape	£10.06	£9.50
WX21053	0-33-443	10m Tape	£15.92	£15.04

Tuf-Lok Measuring Tapes



Professional Measuring Tapes



DRAPER

- Tough impact resistant satin chrome plated case
- Large positive blade locking button and belt clip
- Power return nylon coated blade
- Tape sizes:-
3m tape: (10ft) x 13mm
5m tape: (16ft) x 19mm
7.5m tape: (25ft) x 25mm
9m tape: (29ft) x 25mm

Price Each

Order Code	Product Code	Description	1+	6+
WX30802	55813	3m Tape	£4.95	£4.66
WX30803	55814	5m Tape	£7.28	£6.85
WX30804	55815	7.5m Tape	£12.61	£11.87
WX30804	36016	9m Tape	£12.61	£11.87

XP Tape Measures



IRWIN
Industrial Tools

NEW

- Plastic case with full Pro-Touch grip & steel side panels for added protection
- Fast lock blade hold
- Nylon sleeved blade
- 20x life of Standard Irwin blade coating
- Double sided Imperial/Metric blade print
- Double hook
- Extended length of hook panel with 3 rivets for durability

- Blade Stand out 5m/16ft 2.3m
- Blade Stand out 8m/26ft 2.5m

Price Each

Order Code	Product Code	Blade Length	Blade Width	1+	6+
WX61027	10507800	5m/16ft	25mm	£13.97	£13.15
WX61028	10507801	8m/26ft	27mm	£19.22	£18.09

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Test & Measurement

FatMax - BladeArmour



STANLEY FatMax

- Extra wide blade - 32mm gives up to 3.35m (11 ft) of 'stand out' for easy reading
- 'BladeArmour' Industrial Coating for maximum durability
- Impact resistant cushion grip
- Multi-function hook grabs on the side, top and bottom
- 3 Rivet end hook - 40% stronger than a 2 rivet hook
- Tru-Zero compensates for accurate internal or external measurements
- Mylar coated blade for long life - greater abrasion resistance
- Positive Blade lock
- Tape gives metric and imperial readings
- Class II accuracy
- Tape sizes:
5m Tape: (16ft) x 32mm
8m Tape: (26ft) x 32mm

Price Each

Order Code	Product Code	Description	1+	4+
WX21058	0-33-719	5m Tape	£16.12	£15.22
WX21059	0-33-726	8m Tape	£19.70	£18.61

Measuring Tapes



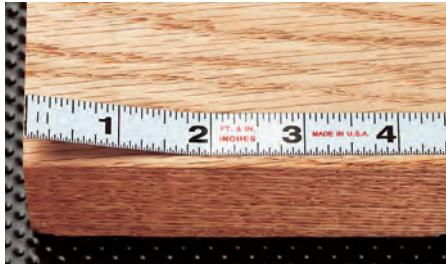
DRAPER

- Tough impact resistant ABS case with soft grip, blade locking button and belt clip
- Hold and measure button allows user to lock tape for accurate measurements with button on base to control speed of return blade into tape
- Power return nylon coated blade has clear black and red graduations, metres into cm/mm and feet into inches, 1/8" and 1/16"
- Yellow wear resistant coating
- Stud centre markings every 16"
- Self-aligning end hook for very accurate internal/external measurements
- Tape Sizes:
3m Tape: (10ft) x 16mm
5m Tape: (16ft) x 19mm
7.5m Tape: (25ft) x 25mm

Price Each

Order Code	Product Code	Description	1+	6+
WX38626	75300	7.5m Tape	£8.72	£8.21
WX38625	75299	5m Tape	£6.77	£6.37
WX38624	75298	3m Tape	£4.57	£4.30

Measure Stix™ Steel Measuring Tape with adhesive backing



Starrett

- Tape measure sticks to almost any work surface for convenient, at-a-glance measurements
- High quality precision steel rule is flat with permanent adhesive back
- Cut to size with scissors
- Mount on workbenches, saw tables, drafting tables, etc

Price Each

Order Code	Product Code	Description	1+	5+
WX43976	SM44ME	1/2" x 4' (13 mm x 1.2 m)	£3.91	£3.69
WX43977	SM412ME	1/2" x 12' (13 mm x 4 m)	£5.01	£4.73
WX43978	SM66ME	3/4" x 6' (19 mm x 2 m)	£4.46	£4.21

Fisco - Big T™



FISCO

- Innovation at its very best FISCO have developed a new generation of measuring tapes that sets new standards in design and technology
- Rubber protection at all potential impact points, and a patented internal shock absorber
- Easy inside measurements, case size makes add-ons easy
- Plus cursor shows the precise reading
- Unique snap-in belt holster. Holds tape securely, and quick to release
- Ergonomic shape feels moulded to your hand and is great to use
- Superior brake control - minimum effort with maximum holding power
- Clear-view end-hook - read the scale right up to the tip
- Integrated buffer on tape protects tip against damage
- Two blade widths 19mm and 25mm showing imperial and metric measurements. Metric options are also available

Price Each

Order Code	Product Code	Description	1+	4+
WX43979	BT5ME	5m/16ft - 19mm blade	£10.41	£9.80
WX43980	BT8ME	8m/26ft - 25mm blade	£14.08	£13.26

Long Measuring Tapes

Open frame tapes



Roebuck NEW

- Measuring tape with PVC coated glass fibre blade
- Flexible and extremely strong
- Rust free, rot proof and water resistant to most common chemicals
- Electrically non-conductive when dry
- Graduated on both sides
- Imperial on one side and metric on the other
- Folding winder handle
- Frame constructed from strong black ABS which is extremely tough and impact resistant

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX61029	231704	30m/100'	13 mm	£10.20	£9.69
WX61030	231705	50m/165'	13 mm	£19.01	£18.06

Closed case tape



Roebuck NEW

- Measuring tape with PVC coated glass fibre blade
- Flexible and extremely strong
- Rust free, rot proof and water resistant to most common chemicals
- Electrically non-conductive when dry
- Graduated on both sides
- Imperial on one side and metric on the other
- Folding winder handle
- Strong steel coated case
- Hand strap fitted to 30m tape only

Price Each

Order Code	Product Code	Length	Width	1+	6+
WX61031	231701	10m/33'	13 mm	£16.70	£15.87
WX61032	231702	20m/66'	13 mm	£24.14	£22.93
WX61033	231703	30m/100'	13 mm	£25.89	£24.60

Open Fibreglass Tapes



STANLEY

- 26 strand 12mm wide blade
- Crystal clear graduations on an easy clean surface
- Metric and imperial blade printed both sides
- Bi-material handle and shaped winder for ease of use
- Class III accuracy
- Tape size: 30M (100ft) x 12.7mm

Price Each

Order Code	Product Code	Description	1+	4+
WX21064	2-34-791	30m Tape	£16.87	£15.93

Closed Fibreglass Tapes



STANLEY

- 26 strand 12mm wide blade
- 2 colour graduations allowing easy reading
- High impact ABS case
- Folding handle for storage
- Class III accuracy
- 30m tape: (100ft) x 12.7mm

Price Each

Order Code	Product Code	Description	1+	6+
WX21063	0-34-262	30m (100')	£11.10	£10.48

Fisco - Euromet



FISCO

- Professional grade, high specification steel surveying tape, constructed to withstand heavy use
- Corrosion resistant steel case
- Whitecote polyester coated steel tape
- High impact polymer centre
- Corrosion resistant winding lever
- Corrosion resistant end-piece
- Hand strap on 50m models
- 10, 20, 30 & 50 metre metric scale models are also available

Price Each

Order Code	Product Code	Description	1+	4+
WX43981	EX30/14	30m/100ft	£29.24	£27.52
WX43982	EX50/15	50m/165ft	£39.75	£37.41

Fisco - Pacer



FISCO

- Heavy duty, high specification open frame tape designed for the professional user
- Impact resistant moulded ABS frame with ground spike
- Whitecote polyester coated steel tape
- High impact polymer centre
- Low friction bearing for smooth rewind
- Long winding lever and easy-grip knob
- Corrosion resistant end-piece
- Low friction mouthpiece insert

Price Each

Order Code	Product Code	Description	1+	4+
WX43983	PR50/15	50m/165ft	£50.58	£47.60
WX43984	PR100/15	100m/330ft	£84.92	£79.92

Diameter/Circumference Tapes

Circumference Tapes



- Measuring tapes for outer diameters
- Laser-scaled 1/1mm graduation DIN 866
- Vernier 0.05mm
- In Black coated spring steel (maximum contrast) and Stainless steel

Price Each

Order Code	Product Code	Description	1+	2+
WX53610	5285-301	15-115 mm, Blk	£131.20	£124.64
WX53611	5285-302	100-230 mm, Blk	£185.60	£176.32
WX53612	5285-303	200-330 mm, Blk	£197.32	£187.45
WX53613	5285-304	300-620 mm, Blk	£247.48	£235.11
WX53614	5285-401	15-115 mm, SS	£103.74	£98.55
WX53615	5285-402	100-230 mm, SS	£155.72	£147.93
WX53616	5285-403	200-330 mm, SS	£164.28	£156.07
WX53617	5285-404	300-620 mm, SS	£212.28	£201.67

Circumference & Diameter Tapes



- Circumference tapes for outer Ø and circumference
- Laser-scaled 1/1mm graduation DIN 866
- Cross section 16 x 0.2mm
- Vernier 0.1mm
- In spring steel

Price Each

Order Code	Product Code	Dia mm	Circ mm	1+	2+
WX53618	5285-101	20-300	60-950	£64.65	£61.42
WX53619	5285-102	300-700	940-2200	£78.29	£74.38
WX53620	5285-103	700-1100	2190-3460	£95.57	£90.79
WX53621	5285-104	1100-1500	3450-4720	£118.40	£112.48
WX53622	5285-105	1500-1900	4710-5980	£142.92	£135.77
WX53623	5285-106	1900-2300	5960-7230	£160.00	£152.00
WX53624	5285-107	2300-2700	7220-8500	£261.32	£248.25
WX53625	5285-108	2700-3100	8480-9760	£280.52	£266.49
WX53626	5285-109	3100-3500	9730-11010	£331.72	£315.13

Chalk Lines

Blue Chalk Line



DRAPER

- 115g Bottle of blue line chalk
- Plastic bottle of fine chalk for use with Draper and other manufacturers chalk lines
- Supplied with funnel for filling

Price Each

Order Code	Product Code	Description	1+	6+
WX38622	69582	Blue Chalk	£1.90	£1.79

Chalk Line - 30m



STANLEY

High impact ABS case for strength & durability. Sliding door for quick and easy chalk refill. Stainless steel end hook - corrosion resistant. 30g chalk capacity. Line break to be used vertically as a plumb bob.

Price Each

Order Code	Product Code	Description	1+	6+
WX42018	0-47-440	Chalk Line 30m	£6.71	£6.33

FatMax XL™ Chalk Line & Chalk



Roebuck

NEW

- Conforms to BS 939:1977, grade B
- Manufactured to close tolerances in high grade steel
- Both blade and stock are ground and polished with the blade being hardened and tempered

Price Each

Order Code	Product Code	Size mm	Size Inch	1+	6+
WX61034	233005	75	3	£19.55	£18.57
WX61035	233006B	100	4	£20.55	£19.52
WX61036	233007	150	6	£24.23	£23.02
WX61037	233008	225	9	£52.70	£50.07
WX61038	233009	300	12	£67.57	£64.19

Engineer's Squares



STANLEY FatMax

- Patented ChalkView™ case means you can see exactly how much chalk you have left
- 5:1 gear ratio fast rewind
- 3 x line abrasion resistance of traditional chalk reels
- Quick reel out release button to prevent handle spinning
- Handle locks into case to hold string in place
- Can be used vertically as a plumb bob
- Durable die cast aluminium case with belt clip
- Contains 30m (100ft) of polyester/nylon string
- Supplied with 4oz of blue chalk

Price Each

Order Code	Product Code	Description	1+	6+
WX42040	5-47-482	Chalk Line	£14.77	£13.95

Road-Line



FISCO

- Tough, high visibility ABS body
- 30m/100ft double twisted cotton line
- Ergonomic, lockable winding handle
- Corrosion resistant end-loop
- Quick change refill facility
- Complete with 360g superfine marking chalk
- Fisco products are made in the UK

Price Each

Order Code	Product Code	Description	1+	6+
WX45616	ROADLINE		£24.91	£23.44

Squares & Angle Measurement

Squares

Workshop grade B engineers squares



4 Piece Engineer's Square Set



- Manufactured from high quality steel
- Beam and blade ground and lapped for accuracy
- Blade is hardened and tempered
- Stated blade length is from the inner edge of the stock to the blade tip
- 4 Piece set contains: 2", 3", 4" and 6"

Price Each

Order Code	Product Code	Description	1+	3+
WX35178	7000-54B	4 Pcs Set	£77.81	£73.92

Combination Square

Roebuck NEW

- The square and centre heads are of hardened steel
- Protractor head is reversible and is graduated 0° to 180° in both directions
- All heads have blue stove enamelled hammer finish with accurately ground working surfaces
- The 300mm/12in blade is fully tempered and hardened
- Satin chrome finish gives exceptional clarity to the very fine graduations and resists abrasion

Price Each

Order Code	Product Code	Description	1+	6+
WX61039	031550	Combination set	£109.16	£103.70
WX61040	030585	Square Head	£43.89	£41.70
WX61041	030586	Centre Head	£33.28	£31.62
WX61042	030587	Protractor Head	£47.40	£45.03
WX61043	030588	Combination Blade 300mm / 12in	£27.53	£26.15
WX61044	030078	Part A clamp screw	£4.22	£4.05

360° Precision Combination Square



- Manufactured to BS Standard
- Protractor has full 360°
- Scale graduated 0 - 180° - 0
- Fully hardened and ground datum faces to resist wear
- Fully hardened and tempered precision rule with deeply etched graduations on both sides for ease of reading and long life
- Choice of 2 rule sizes
- Protractor, square and centre heads available separately

Price Each

Order Code	Product Code		1+	3+
WX35172	CSME12	Full Set	£150.75	£142.38
Range: Full Set				
WX35173	CSRME12	300mm/12" Rule	£28.98	£27.45
Graduation: 0.5mm every 10mm / 32nds & 64ths every 1/8"				
WX35174	CSRME24	600mm/24" Rule	£52.73	£49.95
Graduation: 0.5mm every 10mm / 32nds & 64ths every 1/8"				

Combination Square



CALIBRATION Available ✓

Mitutoyo

- 3 measuring heads attached to a stainless steel rule allowing measurements of various workpieces
- Square head is used to set the rule at 90° or 45° to the edge of the workpiece
- Centre head is used to locate centres of round workpieces
- Protractor head is used to set the rule to a desired angle

Price Each

Order Code	Product Code		1+	3+
WX20342	180-907		£119.70	£113.72

Combination Square



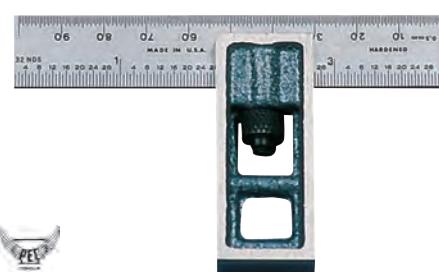
DRAPER

- Matt black metal stock with machined faces, centre reversible protractor and brass adjusting screws
- Protractor incorporates a spirit level and is clearly graduated 0°-180° in both directions
- Stock incorporates spirit level and scribe. Aluminium blade is graduated mm and 1/16" one side and 1/2mm and 1/32" on the other

Price Each

Order Code	Product Code		1+	3+
WX35103	34704		£38.22	£36.31

Double Squares



- Blade is hardened, tempered and chrome plated for longer life
- Blade is adjustable for position in the accurately ground cast stock
- Stock can also be used as a parallel
- Graduation reading: F: 32nds & 0.5mm R: 64ths & 1.0mm

Price Each

Order Code	Product Code	Description	1+	3+
WX35179	7104-264	100mm/4"	£38.86	£36.92
WX35180	7105-266	150mm/6"	£43.32	£41.15

Carpenters square

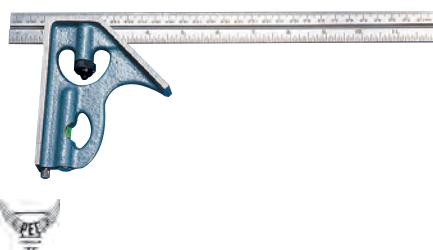
Roebuck NEW

- Blue stove enamelled hammer head of hardened steel
- 300mm/12in blade is graduated in imperial and metric with ground edges and ends

Price Each

Order Code	Product Code	Description	1+	6+
WX61045	031551	Carpenters square	£19.69	£18.71
WX61044	030078	Part A clamp screw	£4.22	£4.05

Carpenters Combination Square



- Tool comprises, Combination Square Head with adjustable steel blade
- Square head provides 90° & 45° angles
- Spirit level and scribe located in Square Head
- Steel blade: 300mm / 12" long with metric and inch marking

Price Each

Order Code	Product Code	Description	1+	3+
WX31803	7111-012	300mm/12"	£19.69	£18.71

Angle Measurement

Universal Bevel Protractor

Roebuck NEW

- Dial face and vernier in satin chrome,
- Magnifier for easy reading of vernier scale, p
- Protractor dial guaranteed 360 x 1 degree,
- Vernier scale reads to 5 minutes of arc,
- Blade length is 150mm,
- Blades made from alloy steel, hardened & ground
- 1 x right angle accessory

Price Each

Order Code	Product Code		1+	6+
WX61046	030640		£92.24	£87.63

Universal Bevel Protractor Series 187



CALIBRATION Available ✓ **Mitutoyo**

- Vernier Protractor with a minimum reading of 5 minutes
- High angle gauge for measurements of machines moulds and jigs etc
- Ideal for use as a reference when assembling or machining
- Supplied with 300mm rule magnifier and a holder

Price Each

Order Code	Product Code	1+	3+
WX20352	187-908	£182.70	£173.57

Digital Mini-Mag Level



- Embedded magnets on 2 sides
- Measuring range 360° (4 x 90°)
- Resolution 0.05°
- Accuracy +/- 0.2°
- Standard 9V battery
- Dimensions: L60mm x H60mm x W35mm

Price Each

Order Code	Product Code	Description	1+	3+
WX43987	570-01	Digital Mini Level (Magnetic)	£40.00	£38.80

Digital Angle Finder



level developments

- Easy to read digital LCD display, measures 360° with high resolution of 0.05°
- 'Hold' button to freeze current reading
- Absolute measurement (records the original zero position after power off)
- Simple recalibration procedure to restore factory accuracy
- Simple zero setting for relative measurement
- Clamp screw to lock the blade at any position
- Auto switch-off after 5 minutes not in use
- Supplied with battery and instructions

Price Each

Order Code	Product Code	Description	1+	3+
WX53600	PROSET-250	Angle Measure	£32.44	£30.81

Digital Protractor



Mitutoyo **CALIBRATION Available ✓**

- Full range 360° protractor
- Machined aluminium frame
- Alternative reference (zero)
- Hold function
- Display reverses when tilted past 90°
- Battery life approximately 500 hours
- Resolution of 0.1 degrees

Price Each

Order Code	Product Code	1+	3+
WX20372	950-315	£243.60	£231.42

Electronic Level



Roebuck **NEW**

- An electronic digital LCD display inclinometer which can be used independently or affixed to machinery or straight edges
- Display angle (degrees) or inclination (%)
- Audible chime that indicates plumb and level
- User calibration possible
- LCD display operates through full 360° and display 0-90° or 0-100%
- Display inverts automatically to allow easy reading at any angle
- Auto power shut off after approx. 6 minutes
- Dimensions: 168 x 54 x 36mm

Price Each

Order Code	Product Code	1+	6+
WX61047	1370720	£76.63	£72.80

PRO360 Digital Inclinometer



level developments

- The PRO 360 Digital Protractor is a revolutionary measuring tool that provides an immediate, digital reading of all angles in a 360° range
- The frame is grooved along the bottom surface to facilitate use with round objects such as pipes or shafts and incorporates threaded holes on the bottom for rigid attachment if desired
- The front panel buttons can be used to capture desired readings or to designate an alternate reference surface from which subsequent angles are then measured
- The unit can also be easily recalibrated in the field to factory accuracy using any available flat surface
- The unit operates for up to 500 hours on a single 9V battery
- Measures over full 360° range
- Standard reference = 0.00°
- ALT ZERO° button for differential readings
- HOLD° button to freeze reading
- Simple user re-calibration procedure to restore factory accuracy
- Precision machined aluminium frame
- Automatic shutdown for power save (can be disabled)
- A precision machined aluminium frame provides a rigid, lightweight, ultraprecise platform for extremely accurate measurements

Price Each

Order Code	Product Code	Description	1+	3+
WX45628	LD-2M	Inclinometer	£216.29	£205.48

Exact Angle Meter



Starrett

- This angle meter offers a fast, easy and inexpensive way to measure angles
- Large, readable scale for accurate readings from 0-90° in any quadrant
- Magnetic base frees hands when used on ferrous surfaces
- Measures any angle for pitch or slope
- Handy rise, run, angle, and pitch information on back of tool

Price Each

Order Code	Product Code	Description	1+	4+
WX42045	AM-2	Angle Meter	£22.25	£21.01

Parallel & Block Sets

10 Pair Parallel Set



Roebuck NEW

- 10 pairs precision ground parallel set in moulded plastic case, consisting of the following heights 1/2, 5/8, 3/4, 7/8, 1-1/8, 1-1/4, 1-3/8, 1-1/2, 1-5/8
- All parallels 1/8 in thick x 6 in length
- Manufactured from hardened steel

Price Each

Order Code	Product Code	1+	6+
WX61048	030243	£57.10	£54.25

Parallel Set



- Comprises of 10 pairs of hardened & ground parallels
- 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-1/2" & 1-5/8"
- Parallelism accuracy .0002"
- Matched pair accuracy .0003"
- Length = 6", Width = 1/8"

Price Each

Order Code	Product Code	Description	1+	3+
WX35115	52-437-010U	Set of 10	£56.05	£53.25

Metal & Wire Detection

Intellilaser Pro



STANLEY

- Multi-depth detection of studs at 12, 25 and 38mm
- Built in laser & additional laser pod attachment
- Audible tone & graphic display on detection of studs
- Backlit LCD screen
- Continuous live wire detection
- Laser unit mounts to wall for hands free operation.

Price Each

Order Code	Product Code	Description	1+	3+
WX42021	0-77-500	Intellilaser Pro	£67.64	£63.88

Laser Rangefinders

Fluke Distance Meter



FLUKE

NEW

- Now all types of users can reach beyond the limitations of the common tape measure to measure farther, with greater accuracy in more situations.
- They can perform those measurements with the Fluke accuracy, durability and reliability that professionals trust.
- The new Fluke family of laser distance meters offers features and functions that are equal to or better than competitive laser meters
- Fluke professional 414D - 50M / 165FT Accuracy \pm 2mm
Easy, automatic math for area and volume, add and subtract with ease
- Fluke advanced 419D - 80M / 260FT Accuracy \pm 1mm
3-line display plus storage for 20 complete displays
Tripod mountable
- Fluke ultimate 424D - 110M / 330FT Accuracy \pm 1mm
Feature-rich meter includes tilt sensor for hard-to-reach measurements, corner angle feature, compass and more

Price Each

Order Code	Product Code	Description	1+
WX61049	414D	Laser Distance Meter	£101.00
WX61050	419D	Laser Distance Meter	£185.00
WX61051	424D	Laser Distance Meter	£283.00

Distance Estimator with Laser Pointer



DRAPER

- Expert quality, measures and calculates area, volume, depth and length of objects
- Distance range 610mm - 12M (2 - 40ft)
- Features include 0-90° adjustable head allows measurements to be easily made from floors, built-in calculator, LCD display, audible indicator, laser pointer and wrist strap
- Powered by a PP3 size battery (not included)
- A detailed instruction leaflet is enclosed with each tool
- Measuring range 0.6-15m / 2-50ft

Price Each

Order Code	Product Code	Description	1+	6+
WX38623	73968	12m	£40.21	£37.84

Rangefinder GLM 250 VF Professional



BOSCH

- The laser rangefinder with the longest range
- Ideal for outdoor use: integrated telescopic viewfinder for optimum visibility of the laser point up to a distance of 250 m
- Maximum measurement performance and precision, even in adverse lighting conditions, due to large glass lens and ceramic optics carrier
- Numerous easy-to-operate measurement functions for fast and accurate calculation of distances, areas and volumes
- Robust for use on the construction site due to dust and splash protection of IP54
- Laser diode: 635 nm, < 1 mW
- Laser class: 2
- Measurement accuracy, typical: \pm 1 mm
- Measurement time, typical: < 0.5 s
- Measuring time, max.: 4 s
- Power supply: 4 x 1.5 V LR03 (AAA)
- Automatic deactivation: 4 mins
- Weight, approx.: 0.24 kg
- Length: 120 mm, width: 66 mm, height: 37 mm
- Units of measure: m/cm/mm
- Memory capacity (values): 30
- Battery lifetime, individual measurements, approx.: 30.000
- Battery lifetime, operating time, approx.: 5 h
- Integrated telescopic viewfinder
- Carrying strap
- 4 x 1.5 V batteries
- Protective bag

Price Each

Order Code	Product Code	Description	1+	3+
WX35563	GLM250VF	250m	£249.00	£245.00


STANLEY

- Accuracy is +/- 1.0mm over entire range
- Range of 5cm to 100m for wide range of applications
- One person operation means greater productivity
- Easy to take measurements in busy or out-of-reach areas
- Inclination sensor
- Auto switch-off
- Calculator functions - addition, subtraction, area, volume, trapezoid and pythagoras
- Back-lit screen easy to read
- Memory function - stores last 19 readings
- Stake out function to calculate constant distances for marking out
- 2 x AAA Batteries (not supplied)

Price Each

Order Code	Product Code	Description	1+	6+
WX43991	1-77-922	100m Laser Measure	£327.86	£309.65

Digital Laser Rangefinder

BOSCH

- The DLE 150 is the perfect choice for continuous measurement of distances, lengths, areas and volumes
- Accurate up to 150 metres
- Easy, self-explanatory operation with clear display
- Large light display
- Wide range of practical functions such as indirect length measurement, continuous measurement, min and max function, addition and subtraction function, and memory

Laser Diode	635 nm, < 1 mW
Laser Class	2
Measurement Range	0.3m - 150m
Accuracy	±3 mm
Power Supply	4x 1.5 V DC
Measurement Time	0.5 sec - 4 sec
Size (mm)	150 x 68 x 45

Price Each

Order Code	Product Code	Description	1+	3+
WX35092	DLE150	150m	POA	POA

Levels
Laser Levels
Cross Line Laser

DEWALT

- 2 beam Self-levelling cross line laser is accurate to ±0.3 mm/m in levelling applications
- Self-Levelling up to +/-4° surface angle with automatic out of level indication, marks a levelled line in seconds
- Indoor visibility range 15 m, Laser class 2, <1mW
- 2-button operation and low battery indication for ease of use
- Built-in magnetic pivot bracket mounts easily on metal surfaces
- Tripod connection 1/4"
- Overmolded housing helps maintain calibration under jobsite conditions
- Weight 0.46 kg, 113x61x112mm (HxWxL)
- Includes 3 x (AA) batteries for 20+ hours runtime, Wall mount bracket, Heavy duty carrying case which protects unit and helps maintain calibration when stored in gang box

Price Each

Order Code	Product Code	1+	3+
WX41984	DW088K-XJ	£262.00	£245.63

LASER level

BOSCH

- New Rotation 300m diameter laser horizontal/vertical + receiver + remote control + wall mount + 122-295cm Tripod + Cut and Fill rod
- Easy to operate with horizontal and vertical self-levelling
- Easy to operate with single-button function and self-explanatory display
- Quickly settable in horizontal and vertical use due to automatic self-levelling (±5°)
- Safe working thanks to shock warning function in the event of shocks
- Set comes complete with laser receiver for accurate alignment
- Point, line and rotation modes for optimum visibility
- High accuracy of 0.1 mm/m
- High level of robustness: fully functional, even after being dropped from a height of 1 m
- Dust and splash protection IP54
- Laser diode: 635 nm, < 5 mW
- Laser class: 2
- Levelling accuracy: ± 0.1 mm/m
- Self-levelling range: ± 8% (± 5°)
- Rotation speed: 150, 300, 600 rpm
- Beam diameter: 5 mm on tool
- Power supply: 2 x 1.2 V NiMH (D)

Price Each

Order Code	Product Code	1+	3+
WX53564	GRL300HVBT300SET	£749.00	£719.00

Rotating Laser Level Kit

DRAPER

- Laser Level Kit with rotating tripod for 360° marking
- Designed for applications where repeat measurements are required
- Heavy duty tripod with rotating base marked 360°
- Supplied with 2 x 90° prisms, laser enhancement goggles and blow moulded carry case
- One horizontal vial and revolving angle finder

Price Each

Order Code	Product Code	Description	1+	3+
WX30852	69580	Laser Kit	£27.01	£25.42

SP-2 Laser Level

STANLEY

- Rotary base for rapid & accurate set up of level and right angles
- Fixing pins for secure fixing to walls
- Base levelling screw and swing out levelling feet for precision levelling
- Plumb vial for accurate vertical levelling
- Precision vial
- Magnetic base for secure clamping to metal stud and pipe work
- Beam spreader generates laser chalk line
- Battery case
- 5/8" x 11 thread mount - fits to camera tripod
- Dimensions: 80mm x 240mm x 32mm

Price Each

Order Code	Product Code	Description	1+	3+
WX39946	0-77-152	Laser Line	£55.58	£52.49

4 in 1 Laser Level



DRAPER

- Designed for use where a constant level or repeat level measurements are required
- Applications include alignment of windows, dado rails, kitchen units, stairs, outdoor levelling etc
- Adjustable magnetic base plate to aid stability
- Features include laser spot, laser line, laser cross line and LED flashlight
- Accuracy: 12.7mm/9.14M
- Uses two AAA batteries (supplied)

Price Each

Order Code	Product Code	Description	1+	6+
WX38627	88987	4 in 1	POA	POA

Cross check level



Roebuck

NEW

- A cross check spirit level, which levels any surface in 2 directions, the accuracy is 3mm per metre
- Dimensions are 44mm x 60mm x 13
- 5mm and the level has two screw holes for mounting 4mm dia x 25mm centres

Price Each

Order Code	Product Code	1+	6+
WX61052	2017426	£2.47	£2.35

Spirit Levels

FatMax - Non-Magnetic



STANLEY
FatMax

- Machine milled on both sides - 0.5mm/m accuracy on top face & 0.7mm/m accuracy on bottom face
- Large vials for visibility
- Shock absorbing end caps protect the accuracy of the level if accidentally dropped
- Bi-material rubber hand grips for comfort & grip
- Lifetime guarantee for accuracy
- Available in magnetic versions for steel work

Price Each

Order Code	Product Code	Description	1+	6+
WX42027	5-43-524	600mm (24")	£22.37	£21.13
WX42029	5-43-536	900mm (36")	£26.86	£25.36
WX42031	5-43-548	1200mm (48")	£31.33	£29.59
WX42033	5-43-572	1800mm (72")	£53.75	£50.76

FatMax - Magnetic



STANLEY
FatMax

- Machine milled on both sides - 0.5mm/m accuracy on top face & 0.7mm/m accuracy on bottom face
- Large vials for visibility
- Shock absorbing end caps protect the accuracy of the level if accidentally dropped
- Bi-material rubber hand grips for comfort & grip
- Lifetime guarantee for accuracy
- Magnetic versions for steel work (Rare earth magnets)

Price Each

Order Code	Product Code	Description	1+	6+
WX42028	5-43-525	600mm (24")	£25.15	£23.75
WX42030	5-43-537	900mm (36")	£29.55	£27.91
WX42032	5-43-549	1200mm (48")	£34.47	£32.56

FatMax XL™ Box/Beam Level



STANLEY
FatMax

- Rock solid box beam construction - up to 5 times stronger than other Stanley levels
- Solid block vials - magnified by 20% for improved all round visibility
- Dual machined faces for best in class accuracy in 8 orientations of +/- 0.5mm/m
- Bi-material hand grips are screwed into the frame for comfort & grip
- Lifetime guarantee for accuracy
- Also available in magnetic versions for steel work (Rare earth magnets)

Price Each

Order Code	Product Code	Description	1+	6+
WX42035	5-43-624	600mm (24")	£30.90	£29.18
WX42037	5-43-648	1200mm (48")	£41.18	£38.90
WX42039	5-43-672	1800mm (72")	£72.11	£68.10

FatMax XL™ Box/Beam Level - Magnetic



STANLEY
FatMax

- Rock solid box beam construction - up to 5 times stronger than other Stanley levels
- Solid block vials - magnified by 20% for improved all round

visibility

- Dual machined faces for best in class accuracy in 8 orientations of +/- 0.5mm/m
- Bi-material hand grips are screwed into the frame for comfort & grip
- Lifetime guarantee for accuracy
- Rare earth magnets, which are twice as strong as basic strip magnets, are built into the level for stability

Price Each

Order Code	Product Code	Description	1+	6+
WX42036	5-43-625	600mm (24")	£33.32	£31.84
WX42038	5-43-649	1200mm (48")	£45.32	£42.80

Shark Aluminium Levels



DRAPER

- Heavy cast aluminium trapezoid-shaped level
- Specially manufactured to withstand the impact of hammer blows
- Accurate to 0.5 mm per metre

Price Each

Order Code	Product Code	Description	1+	6+
WX30849	69551	400mm	£27.97	£26.32
WX30850	69552	600mm	£29.82	£28.06
WX30851	69553	800mm	£35.22	£33.15

Torpedo Levels

250mm Contractors Levels



DRAPER

- Expert Quality, with unique front viewing 'PLUMBSITE'® vial
- Cast aluminium with one horizontal, one 45° and a 'PLUMBSITE'® vial
- Special milled base with two ceramic magnets
- Accuracy: 0.5mm per 1M = 0.029° in standard position
- Manufactured for Draper Tools by Kapro

Price Each

Order Code	Product Code	Description	1+	6+
WX38621	69550	250mm	£28.27	£26.61

We can supply
the entire range.
If you can't see
it here, just call
0870 240 2100

Aluminium Torpedo Level

**STANLEY**

- Combines accuracy and lightweight, ideal for all small installations
- 3 vials: horizontal, plumb and 45°

Price Each

Order Code	Product Code	Description	1+	6+
WX21082	0-43-603	230mm	£16.46	£15.55

Number of Vials: 3

Plastic Torpedo Level

**STANLEY**

- Handy and economical plastic level
- 3 vials: horizontal, plumb and 45°

Price Each

Order Code	Product Code	Description	1+	6+
WX21078	0-42-294	200mm	£4.82	£4.55

Number of Vials: 3

Shockproof Magnetic Torpedo Level

**STANLEY** **NEW**

- High visibility vials, Horizontal, vertical and 45degree
- Rubber end caps to provide protection
- 3 Vials

Price Each

Order Code	Product Code	Description	1+	6+
WX61053	0-43-511	230mm	£11.56	£10.91

FatMax XL™ Torpedo Level

**STANLEY** **FatMax**

- Rock solid box beam construction - up to 5 times stronger than other Stanley levels
- Solid block vials - magnified by 20% for improved all round visibility
- Machined faces for best in class accuracy in 8 orientations of +/-0.5mm/m
- Bi-material hand grips are screwed into the frame for comfort & grip
- Lifetime guarantee for accuracy

Price Each

Order Code	Product Code	Description	1+	6+
WX42034	5-43-609	297x62x25mm	£17.90	£16.91

Engineers' Levels

Engineers' Levels



- Main vial sensitivity of 1 minute
- Each level is fitted with a main, cross and plumb vial
- Main vial protected by rotating shroud
- Vial solution maintains colour and fluidity under all workshop conditions
- Precision ground cast base with vee groove for location on cylindrical work
- Resolution: 0.3mm per mtr / 0.0035" per ft

Price Each

Order Code	Product Code	Description	1+	3+
WX45630	ELM	310mmx36x58mm	£165.30	£156.60
WX35175	ELS	165x34x46 mm	£112.58	£106.65

Scales

5kg Weighing Scale

**NEW**

- A low cost general purpose weighing scale ideal for a wide range of weighing applications
- It has a high grade plastic body and weighing pan with 3 function buttons
- It also has a Count-Down timer with a Hi-Frequency sonic alarm sounded on expiry
- Weights in Kg/g or lbs/oz
- 150mmØ weighing pan
- Positive Click function buttons
- Non-slip rubber feet
- 18mm LCD display with large digits and function indicators
- Tare function can be actioned several times through a weighing cycle
- Plus/Minus weighing
- Overload indication "EEEE"
- Count-Down Timer from 99min 99sec with hi-frequency alarm at expiry
- Auto Power Off after 1 minute of no activity
- Supplied with Battery
- Calibration Certificate

Issued at 5 points:
500g, 1000g, 2000g, 3000g & 4000g
Additional points at:
per point
Capacity 5Kg
Resolution 1g
Accuracy ±1g
Power 1 x 3V Lithium Button Cell Battery (CR-2032)
Dimensions 210 x 150 x 33mm (150mmØ Pan)
Weight 333g

Price Each

Order Code	Product Code	Description	1+	3+
WX61054	KS-22	5Kg Scale	£19.75	£18.96

Multi-function Platform Scales



These multi-function platform scales can be either battery powered or mains powered by an AC/DC power adapter. The housing incorporates a splash-proof membrane covered display with 4 function keys. They are very simple to use and designed to suit portable type applications.

- 4 models available with capacities of 35Kg, 60Kg or 150Kg
- Display can be switched from kgs to lbs
- Stainless steel 310 x 300mm platform
- Larger platform size on MEOB-150XL of 945x505x65mm
- Extremely flat construction of only 55 mm high
- Fast stabilisation time of only 2 seconds (approx.)
- 25mm LCD display with large digits and function indicators
- Dust-protected & splash-proof to IP-54 classification (IEC standard 60529)
- Detachable display head with 1.8m coiled cable
- Tare facility can be activated during a weighing cycle
- Auto power off after 2 minutes when used with 6 1.5V AA batteries
- Supplied with AC/DC power adapter

Technical Specifications:

MEOB-35	MEOB-60	MEOB-150	MEOB-150XL
Range:	35Kg	60Kg	150Kg
Resolution:	20g	50g	100g
Accuracy:	±40g	±100g	±200g
Power:	AC/DC power adaptor (supplied)	or 6 x 1.5V AA batteries	Dimensions 310 x 300 x 55mm.

Price Each

Order Code	Product Code	Description	1+	2+
WX41980	‡ MEOB-35	35Kg Platform Scale	£140.80	£135.17
WX41981	‡ MEOB-60	60Kg Platform Scale	£140.80	£135.17
WX41979	‡ MEOB-150	150kg platform Scale	£140.80	£135.17
WX43993	‡ MEOB-150XL	150kg platform Scale	£377.60	£362.50

Platform Scales with case

**NEW**

- Portable Parts Counting Platform Scales
- These robust, portable bench scales have a Stainless Steel pan, remote display head and battery or AC/DC operation
- They are ideal for general commercial and industrial weighing applications, stores, offices, mail rooms, shipping and receiving
- Weights in kg or lbs
- Fast stabilisation time of only 2 seconds (approx.)
- Overload protection to 50% of capacity
- Silicon rubber non-slip feet
- Stainless Steel pan
- Impact-resistant ABS plastic display head with 1.5m coiled cable
- 35mm LCD display with function indicators
- Tare facility can be actioned several times through a weighing cycle
- Plus/Minus weighing function for QA sample cross checks
- Parts Counting from 25, 50, 75 or 100 sample pieces
- Auto Power Off after 2 minutes of no activity (battery powered only)

- Supplied with aluminium carry case, battery and AC/DC mains power adaptor
- Calibration Certificate
- Issued at 5 points:
MHCG-5 5Kg, 10Kg, 20Kg, 30Kg & 40Kg
MHCG-1 20Kg, 50Kg, 80Kg, 120Kg & 140Kg

	MHCG-5	MHCG-1
Capacity	50Kg	150Kg
Resolution	20g	50g
Accuracy	±40g	±100g
Power	1 x 9V PP3 Alkaline Battery (LR-61) or AC/DC Mains Power Adaptor	
Dimensions	275 x 275 x 45mm (Platform), 180 x 95 x 40mm (Head)	
Weight	2.6Kg	

	Price Each			
Order Code	Product Code	Description	1+	3+
WX61055	HCG-1	150Kg Scale	£75.00	£72.00
WX61056	HCG-5	50Kg Scale	£75.00	£72.00

Multi-function Platform Scales - Parts Counting Function



This popular range of function-rich scales. The display head allows flexible positioning for different locations and can be used free-standing, front mounted, wall mounted or mounted on a 450mm elevation stand (ordered separately). These multi-function platform scales can be either battery or mains powered.

- Suitable for a wide range of weighing applications including parcels, parts counting and mixing
- Impact-resistant ABS display head
- 25mm back-lit LCD display with large digits and function indicators
- Backlight mode can be set on, off or auto off
- Tare function can be repeated continuously e.g. when mixing several components
- Percentage determination displays deviation from the reference weight in % instead of grams
- Parts counting from samples of 5,10, 25 or 50 parts
- Memory accumulation of gross total weighing is ideal for batch counting or the individual and total weights of different components of a mixture
- Plus or minus weighing from user set value, ideal for quality control
- Auto zero can be user activated
- RS-232 interface for data transfer to printer or PC
- User calibration checks with certified calibration weights (required separately)
- Auto power off after 5 minutes when used with a battery
- Supplied with a front-of-platform display kit, wall mounting display kit, 1.5 metre display head to platform connection cable, display head dust cover & AC/DC power supply
- Power AC/DC power supply (supplied) or a standard 9V PP3 battery

Technical Specs:	DED-15K2	DED-35K5L	DED-60K10	DED-150K20	DED-300K50L
Range	15Kg	36Kg	60Kg	150Kg	300Kg
Resolution	5g	10g	20g	50g	100g
Accuracy	±5g	±10g	±20g	±50g	±100g

Price Each

Order Code	Product Code	Description	1+	2+
WX61057	DED-15K2	6/15kg x 2/5g RS-232 Platform Scale	£186.88	£179.40
WX61058	DED-35K5L	36Kg Platform Scale	£288.00	£276.48
WX61059	DED-60K10	60Kg Platform Scale	£186.88	£179.40
WX61060	DED-150K20	150Kg Platform Scale	£186.88	£179.40
WX61061	DED-300K50L	300Kg Platform Scale	£396.80	£380.93
WX41978	DE-A10	450mm Rear Display Elevation Kit	£76.80	£73.73

Electronic Caliper Set



Roebuck NEW

- Set contains:-
Electronic digital caliper 150mm/6in,
splash proof electronic micrometer

Price Each

Order Code	Product Code	1+	6+
WX61064	030557	£150.42	£142.90

Measuring Sets

Vernier caliper set



Roebuck NEW

- Set contains :-
Vernier Caliper 150mm/6in,
External Micrometer 0-25mm,
Satin Chrome Steel Rule 150mm/6in

Price Each

Order Code	Product Code	1+	6+
WX61062	030555	£60.29	£57.28

Digital Caliper/Mechanical Micrometer Set



Roebuck NEW

- Two of the most popular Roebuck measuring tools housed in a fitted plastic case
- Roebuck Electronic Caliper 150mm/6"
- Roebuck Mechanical Micrometer 0-25mm

Price Each

Order Code	Product Code	1+	6+
WX61063	9848380	£51.97	£49.37

Calipers

Spring Calipers

Outside Calipers



Roebuck NEW

- Conventional European design with tapered flat section arms
- Bright finish all over including alloy steel spring
- Solid nut adjustment
- Dividers have hardened points

Order Code	Product Code	Size	1+	6+
WX61066	030718	100mm/ 4"	£9.86	£9.37
WX61067	030719	150mm/ 6"	£11.18	£10.62
WX61068	030720	200mm/ 8"	£14.59	£13.86

External Spring Calipers



- Manufactured from polished tool steel
- Bow spring ensures uniform tension over working range
- Centrally mounted adjustment screw offers finer setting, than firm joint type
- Range 150mm (6")

Price Each

Order Code	Product Code	Description	1+	6+
WX38676	52/6	150mm/6"	£16.15	£15.30

Inside Calipers

Roebuck NEW

- Conventional European design with tapered flat section arms
- Bright finish all over including alloy steel spring
- Solid nut adjustment
- Dividers have hardened points

Price Each

Order Code	Product Code	Size	1+	6+
WX61069	030721	100mm / 4"	£9.86	£9.37
WX61070	030722	150mm / 6"	£11.18	£10.62
WX61071	030723	200mm / 8"	£14.59	£13.86

Internal Spring Calipers



- Manufactured from polished tool steel
- Bow spring ensures uniform tension over working range
- Centrally mounted adjustment screw offers finer setting, than firm joint type
- Range 150mm (6")

Price Each

Order Code	Product Code	Description	1+	6+
WX38675	51/6	150mm (6")	£16.15	£15.30

Dividers

Roebuck NEW

- Manufactured to BS3123
- Conventional UK design with tapered flat section arms
- Bright finish all over including alloy steel spring
- Solid nut adjustment
- Dividers have hardened points

Price Each

Order Code	Product Code	Size	1+	6+
WX61072	030715	100mm / 4"	£9.67	£9.19
WX61073	030716	150mm / 6"	£11.67	£11.09
WX61074	030717	200mm 8"	£14.31	£13.59

Large Face Electronic Calipers

Roebuck NEW

- Clear and large 16mm LCD display
- Hardened stainless steel frame and measuring jaws
- Thumb-roll adjustment, knurled locking screw and depth rod
- Inch/Metric Conversion
- 0.01mm/0.0005" resolution
- 0.01mm repeatability
- ± 0.02mm accuracy
- 40mm external and 18mm internal jaws

Price Each

Order Code	Product Code	Range	1+	6+
WX61076	1370723	0-150mm/0-6"	£47.40	£45.03
WX61077	1370724	0-200mm/0-8"	£73.56	£69.88
WX61078	1370725	0-300mm/0-12"	£126.64	£120.31
WX61079	1370726	0-150mm (Metric Only)	£47.91	£45.51

Large digital calipers

Roebuck NEW

- Calipers have hardened stainless steel frame and measuring jaws, fine adjustment and knurled locking screws
- Electronic features: on/off switch, inch/metric conversion, absolute/relative measuring modes and pre-set function
- Accuracy: ± 0.02mm + (0.00005 x L)

Price Each

Order Code	Product Code	Range	Int. Jaw (mm)	Ext. Jaw (mm)	Resolution (mm)	1+	6+
WX61080	030066	600mm/24"	18	100	0.01mm/0.0005in	£268.76	£255.32
WX61081	030548	1000mm/40"	24	125	0.01mm/0.0005in	£651.87	£619.28

Fractional Caliper

Roebuck NEW

- A Digital Caliper which can display metric or imperial (fractional or decimal inch if not a proper fraction)
- Range: 0-150mm/0-6"
- Resolution: Metric: 0.01mm, Inch: 0.0005", Inch Fraction: 1/64"
- Clear LCD display with 10mm digits
- External and internal measurement accuracy +/- 0.2mm

Price Each

Order Code	Product Code	1+	6+
WX61082	1331035	£34.41	£32.69

Polycarbonate Digital Caliper



- Polycarbonate frame
- 4 way measurement
- Accuracy +/- 0.2mm/0.008"
- Functions: mm/inch, zero setting
- Absolute/Incremental measurement
- Supplied retail packed with vinyl pouch

Price Each

Order Code	Product Code	Description	1+	3+
WX43994	MW110-15DPC	150mm (6")	£18.00	£17.46

Resolution: 0.01mm/0.0005"

Digital Calipers



- ABS/INC measurement
- Large LCD display
- On/off switch
- Zero point at any position
- Displays values in mm and inch
- All metal parts made of hardened stainless steel
- CR2032 battery

Price Each

Order Code	Product Code	Description	1+	3+
WX43995	MW110-15DBL	150mm (6")	£37.50	£36.38

Resolution: 0.01mm / 0.0005"

Order Code	Product Code	Description	1+	3+
WX43996	MW110-20DBL	200mm (8")	£65.00	£63.05

Resolution: 0.01mm / 0.0005"

Order Code	Product Code	Description	1+	3+
WX43997	MW110-30DBL	300mm (12")	£106.00	£102.82

Resolution: 0.01mm / 0.0005"

Digital Calipers



- Functions: on/off switch, metric / inch conversion, zero set
- Hardened stainless steel frame and measuring jaws
- Depth Rod
- Thumroll adjustment and knurled locking screw
- Accuracy: 49-923-150 \pm 0.02mm (<100mm)
- Accuracy: 49-923-200 \pm 0.03mm (>100-200mm)
- Accuracy: 49-923-300 \pm 0.04mm (>200-300mm)

Price Each

Order Code	Product Code	Description	1+	3+
WX42606	49-923-150	150mm (6")	£44.56	£42.33
WX42607	49-923-200	200mm (8")	£68.31	£64.89
WX42608	49-923-300	300mm (12")	£136.71	£129.87
WX38656	BATTERY	Spare Battery	£2.57	£2.44

Digimatic ABSolute Caliper Series 500



ABSOLUTE **CALIBRATION Available** **Mitutoyo**

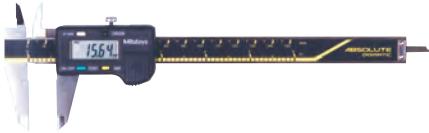
- Easy to read LCD display for quick easy to read accurate 4 way measurement
- Imperial metric conversion
- Zero setting/ABSolute feature
- Patented worldwide; the ABSolute Precision Function from Mitutoyo is easily explained
- Calipers equipped with this system may operate and measure without having to start all over again at the zero point each time
- You yourself establish the zero reference thus being able to display the absolute value of the measured length at each point. Which means in other words; you start at the zero point just once - this point will automatically be 'kept in mind' by the measuring instrument all the time even if its been switched off in between

Price Each

Order Code	Product Code	Description	1+	3+
WX20358	500-196-20	150mm (6")	£95.24	£90.47

Resolution: 0.01 mm/0.0005"

UKAS Calibrated Digimatic ABSolute Caliper Series 500



CALIBRATION Available **Mitutoyo**

- Easy to read LCD display for quick easy to read accurate 4 way measurement
- Imperial metric conversion
- Zero setting/ABSolute feature
- Error free with no overspeed error

Price Each

Order Code	Product Code	Description	1+	3+
WX38672	500-196-20	Calibrated UKAS	£124.48	£118.26

Resolution: 0.01 mm/0.0005" - 150mm (6")

Water Resistant Digital Caliper

IP65 **IP66**

- The term "protection class" generally denotes the protection of an instrument or its interior against direct contact as well as against the ingress of solid foreign bodies like objects, dust or water.

- In this connection, the resistance against strains and loads through the given operating and working conditions are defined by international protection classes (International Protection = IP). The protection classes are indicated in IP standards (DIN EN 60529) where a two-digit numerical code concretely defines the protection degree.

- The first number refers to the resistance against solid foreign bodies and dust, the second number refers to the resistance against the ingress of water. The higher the numerical value of one digit (first number 0-6, second number 0-8), the higher the protection degree.
- In this section you will find both IP66 and IP65 rated calipers

First index Protection against Human Contact Protection against foreign bodies

0	No special protection.
1	With back of hand.
2	With a finger.
3	With tools and wires etc with a thickness >2.5mm.
4	With tools and wires etc with a thickness >1mm.
5	Complete protection.
6	Complete protection.

Second Index Water protection against:

0	No special protection
1	Water dripping vertically
2	Water dripping at an angle (up to 15° from vertical)
3	Water dripping at an angle (up to 60° from vertical)
4	Spray water from all directions
5	Water jets from a nozzle in all directions
6	High pressure jets
7	Temporary immersion
8	Permanent Immersion

Water Resistant Digital Caliper



- Water and dust resistant to IP44 specification
- Large LCD display
- Patented ceramic capacitive sensor
- CR2032 battery
- Functions:
 - mm/inch conversion
 - on/off
 - zero setting
 - ABS/INC measurement

Price Each

Order Code	Product Code	Description	1+	3+
WX45631	MW110-15WR	150mm (6")	£52.50	£50.93

Resolution: 0.01mm / 0.0005"

Order Code	Product Code	Description	1+	3+
WX45632	MW110-20WR	200mm (8")	£81.50	£79.06

Resolution: 0.01mm / 0.0005"

Order Code	Product Code	Description	1+	3+
WX45633	MW110-30WR	300mm (12")	£120.50	£116.89

Resolution: 0.01mm / 0.0005"



ABSolute Coolant Proof Caliper Series 500



CALIBRATION Available ✓ **ABSOLUTE™** ABSolute Systems Powered by MITUTOYO **IP65** **Mitutoyo**

- Patented worldwide; the ABSolute Precision Function from Mitutoyo is easily explained:
- Calipers equipped with this system may operate and measure without having to start all over again at the zero point each time
- You yourself establish the zero reference thus being able to display the absolute value of the measured length at each point. Which means in other words; you start at the zero point just once - this point will automatically be 'kept in mind' by the measuring instrument all the time even if its been switched off in between
- Superb resistance to water, oil, dust and coolant, ideal for use in tough workshop conditions
- Imperial metric conversion
- Large easy to read LCD display

Price Each

Order Code	Product Code	Description	1+	3+
WX38673	500-672	150mm (6")	£109.20	£103.74

Resolution: 0.01 mm

Waterproof Digital Calipers



- Waterproof construction to IP-65 standard
- Large clear digital display with 10mm high characters
- Functions: On / Off switch, Metric / Inch conversion
- Accuracy: +/- 0.02mm (below 100mm), +/- 0.03mm (100 - 150mm)
- Repeatability: 0.01mm
- 4 way measurement: External, Internal, Step and Depth
- Depth rod and thumbroll adjustment

Price Each

Order Code	Product Code	Description	1+	3+
WX31745	49-165-150	150mm (6")	£136.23	£129.42

Resolution: 0.01mm

Depth Gauges

Digitronic Depth Caliper



- Large 7.5mm character height digital display
- Accuracy: 0.03mm; Repeatability 0.01mm
- Functions: Metric/Inch conversion, on/off, data-output, zero setting, battery low indicator

Price Each

Order Code	Product Code	Description	1+	3+
WX32115	M17015DB	150 mm (6")	£47.00	£45.59

Series 571 Digital Depth Gauge



CALIBRATION Available ✓ **Mitutoyo**

- Large LCD display for quick error free depth measurements
- Imperial/Metric conversion
- Repeatability: 0.01mm/0.0005"
- Accuracy: +/- 0.02mm (below 200mm)
- Zero setting/ABSolute feature
- Error free with no overspeed error
- Data output
- ABSolute feature allows depth gauge to retain origin setting even when switched off

Price Each

Order Code	Product Code	Description	1+	3+
WX32077	571-211-20	150mm (6")	£307.65	£292.27

Resolution: 0.01mm/0.0005"

Digital Depth Gauge



- Hardened stainless steel frame and depth base
- Functions: On / Off switch, Metric / Inch conversion, Zero set
- Repeatability: 0.01mm
- Accuracy: +/- 0.02mm (below 100mm), +/- 0.03mm (100 - 150mm)
- Depth base: 100mm x 6.65mm wide

Price Each

Order Code	Product Code	Description	1+	3+
WX31747	49-900-171	150mm (6")	£63.18	£60.02

Resolution: 0.01mm

Vernier Calipers

Vernier calipers



Roebuck **NEW**

- Made from stainless steel with metric and imperial graduations available with either thumblock facility or fine adjustment model which has locking screw
- Resolution 0.02mm/0.001in

Price Each

Order Code	Product Code	Adjustment	Accuracy	Range, measuring max	1+	6+
WX61083	1248905	Thumblock	±0.02mm	100mm / 4"	£27.44	£26.07
WX61084	231725	Thumblock	±0.02mm	150mm / 6"	£21.30	£20.24
WX61085	231726	Fine	±0.02mm	150mm / 6"	£24.35	£23.13
WX61086	030480	Fine	±0.02mm	200mm / 8"	£42.38	£40.26
WX61087	231727	Fine	±0.02mm	300mm 12"	£62.35	£59.23

Price Each

WX61083

WX61084

WX61085

WX61086

WX61087

Vernier Caliper with Fine Adjustment Series 532



CALIBRATION Available ✓ **Mitutoyo**

- Fine adjustment allows sensitive slider movement
- Clear graduations on satin chrome finish
- 14° measuring face angle for easy reading

Price Each

Order Code	Product Code	Description	1+	3+
WX20364	532-119	130mm (5")	£47.15	£44.80

Graduation: 0.02mm

Vernier Caliper with Fine Screw Adjustment



DRAPER

- Expert quality manufactured from hardened stainless steel
- Fourway measurement; internal, external, depth and step
- Satin scales with fine adjustment
- Fine screw adjustment
- Supplied in plastic storage case

Price Each

Order Code	Product Code	Description	1+	6+
WX20772	52380	300mm (12")	£39.88	£37.54

Graduation: 0.02mm

Vernier Calipers with Fine Adjustment



- Hardened stainless steel frame and measuring jaws
- 4 way measurement: External, Internal, Step and Depth
- Depth rod and fine adjustment mechanism
- Dual reading: Metric 0.02mm, Inch 0.001"

Price Each

Order Code	Product Code	Description	1+	6+
WX31787	51-100-006	145mm (5-1/2")	£24.89	£23.65

Graduation: 0.01mm

WX31788

WX31789

Graduation: 0.01mm

Graduation: 0.01mm

Graduation: 0.01mm

Electronic depth gauge



Roebuck **NEW**

- Hardened stainless steel frame and depth base, depth base measures 100mm long x 6.65mm wide
- Resolution 0.01mm/0.0005in
- Capacity 150mm/6 in
- Accuracy ± 0.03mm

Price Each

Order Code	Product Code	Description	1+	6+
WX61107	030618		£66.54	£63.21

Tyre tread depth gauge



Roebuck NEW

- A lightweight robust construction gauge probe & base manufactured from carbon fibre composite, with 3 Button operation: On/Off, Inch/Metric and Zero set, it is also suitable for brake shoe and pad wear and comes complete with a full set of operating instructions
- Specifications:- Total Range 25mm / 1" Resolution: 0.01mm / 0.0005" Accuracy: +/- 0.2mm

Price Each

Order Code	Product Code	1+	6+
WX61108	2017373	£9.97	£9.47

Dial Calipers

Precision dial caliper



Roebuck NEW

- These calipers have hardened stainless steel bodies, with satin chrome finish
- Four way measurement for outside, inside, depth and step
- The calipers incorporate a thumb roll for easy adjustment plus knurled locking screw

Price Each

Order Code	Product Code	Capacity	Graduation	1+	6+
WX61088	030125	6"	0.001" / 1.6"	£33.36	£31.69
WX61089	030126	150mm	0.02mm / 40 mm	£34.51	£32.78
WX61090	030494	8"	0.001" / 1.9"	£56.94	£54.09
WX61091	030495	12"	0.001" / 2.5"	£76.27	£72.46
WX61092	030496	200mm	0.02mm / 48mm	£56.50	£53.68
WX61093	030497	300mm	0.02mm / 63mm	£76.27	£72.46

Dial Calipers



- 4 way measurement: External, Internal, Step and Depth
- Depth rod and thumbroll adjustment
- Hardened stainless steel frame and measuring jaws
- Clear graduations on satin chrome finish
- Metric and imperial options available

Price Each

Order Code	Product Code	Description	1+	3+
WX31792	51-200-150	150mm	£37.05	£35.20
Graduation: 0.02mm				
WX31793	51-200-200	200mm	£55.29	£52.53
Graduation: 0.02mm				
WX31790	51-200-006	6 inch	£37.05	£35.20
Graduation: 0.001"				
WX31791	51-200-008	8 inch	£55.29	£52.53
Graduation: 0.001"				

Micrometers

External Micrometers

External Micrometer



Roebuck NEW

- Non-glare hard satin chrome spindle and sleeve with microfine graduations for accurate reading
- Positive spindle locking lever and ratchet thimble
- Tungsten carbide measuring faces
- Supplied in a plastic case complete with adjustment tool

Price Each

Order Code	Product Code	Range	Scale Divisions	1+	6+
WX61094	032101	0 - 25 mm	0.01 mm	£21.55	£20.47
WX61095	032102	0-1"	0.001"	£21.55	£20.47

Roebuck Mechanical Micrometers



Roebuck NEW

- Accuracy conforms to BS 870 & DIN 863
- Tungsten carbide measuring faces
- Non glare hard satin chrome barrel & sleeve
- Micro fine graduations for accurate reading
- Micrometers above 25mm & 1" supplied with setting rod
- Spindle locking lever
- Spindle diameter 6.5mm
- Standard models have ratchet thimble
- Supplied in fitted case with adjustment tools
- Accuracy 0-25mm: 0.001mm
- Flatness of measuring faces: 0.00076mm
- Parallelism of measuring faces: 0.000125mm

Price Each

Order Code	Product Code	Range	1+	6+
WX61096	9847731	25-50mm	£23.72	£22.53
WX61097	9847740	50-75mm	£31.63	£30.05
WX61098	9847758	75-100mm	£34.05	£32.35
WX61099	9847782	1-2"	£26.78	£25.44
WX61100	9847790	2-3"	£34.09	£32.39
WX61101	9847804	3-4"	£35.67	£33.89

External Micrometer - Tungsten Carbide



- Mechanical external micrometer
- Tungsten carbide anvils
- Accuracy to BS870
- Series 961

- Pearl chrome plated with insulation pads

- Series 966:
- Blue textured frame finish
- Ribbed bow frame

Price Each

Order Code	Product Code	Description	1+	6+
WX32079	1961M	Series 961	£51.50	£49.96

Range Minimum: 0 mm, Range Maximum: 25 mm, Graduation: 0.01mm

Order Code	Product Code	Description	1+	6+
WX32084	1966M50	Series 966	£51.50	£49.96

Range Minimum: 25 mm, Range Maximum: 50 mm, Graduation: 0.01mm

Order Code	Product Code	Description	1+	6+
WX32085	1966M75	Series 966	£69.00	£66.93

Range Minimum: 50 mm, Range Maximum: 75 mm, Graduation: 0.01mm

Order Code	Product Code	Description	1+	6+
WX32083	1966M100	Series 966	£76.50	£74.21

Range Minimum: 75 mm, Range Maximum: 100 mm, Graduation: 0.01mm

Order Code	Product Code	Description	1+	6+
WX32078	1961	Series 961	£37.50	£36.38

Range Minimum: 0", Range Maximum: 1", Graduation: 0.001", Range: Series 961

Order Code	Product Code	Description	1+	6+
WX32080	1966-2	Series 966	£51.50	£49.96

Range Minimum: 1", Range Maximum: 2", Graduation: 0.001"

Order Code	Product Code	Description	1+	6+
WX32081	1966-3	Series 966	£69.00	£66.93

Range Minimum: 2", Range Maximum: 3", Graduation: 0.001"

Order Code	Product Code	Description	1+	6+
WX32082	1966-4	Series 966	£76.50	£74.21

Range Minimum: 3", Range Maximum: 4", Graduation: 0.001"

External Micrometer - Steel



- Mechanical external micrometer
- Steel anvils
- Blue textured frame finish
- Accuracy to BS870
- Series 965:
- Tapered bow frame
- Series 966:
- Ribbed bow frame

Price Each

Order Code	Product Code	Description	1+	6+
WX32094	965M	Series 965	£42.00	£40.74

Range Minimum: 0mm, Range Maximum: 25mm, Graduation: 0.01mm

Order Code	Product Code	Description	1+	6+
WX32099	966M50	Series 966	£59.50	£57.72

Range Minimum: 25mm, Range Maximum: 50mm, Graduation: 0.01mm

Order Code	Product Code	Description	1+	6+
WX32100	966M75	Series 966	£78.00	£75.66

Range Minimum: 50mm, Range Maximum: 75mm, Graduation: 0.01mm

Order Code	Product Code	Description	1+	6+
WX32098	966M100	Series 966	£89.00	£86.33

Range Minimum: 75mm, Range Maximum: 100mm, Graduation: 0.01mm

Order Code	Product Code	Description	1+	6+
WX32093	965	Series 965	£42.00	£40.74

Range Minimum: 0", Range Maximum: 1", Graduation: 0.001"

Order Code	Product Code	Description	1+	6+
WX32095	966-2	Series 966	£59.50	£57.72

Range Minimum: 1", Range Maximum: 2", Graduation: 0.001"

Order Code	Product Code	Description	1+	6+
WX32096	966-3	Series 966	£80.50	£78.09

Range Minimum: 2", Range Maximum: 3", Graduation: 0.001"

Order Code	Product Code	Description	1+	6+
WX32097	966-4	Series 966	£89.00	£86.33

Range Minimum: 3", Range Maximum: 4", Graduation: 0.001"

Metric Micrometer Series 103



Mitutoyo

- Enamelled frame metric micrometers
- Tungsten tipped measuring faces
- Clear graduations on satin chrome finish
- Suitable for all external measurements in either workshop or inspection departments

Price Each

Order Code	Product Code	Description	1+	3+
WX20325	103-137	0 - 25mm	£40.85	£38.81
		Graduation: 0.01mm		
WX20326	103-138H	25 - 50mm	£51.14	£48.58
		Graduation: 0.01mm		

LTL Metric Micrometers



- Accuracy conforms to BS 870
- Tungsten carbide measuring faces
- Non-glare hard satin chrome barrel and sleeve
- Enamelled frame with heat plates
- Micrometers above 25mm supplied with setting rod

Price Each

Order Code	Product Code	Description	1+	3+
WX31755	50-100-025	0 - 25mm	£25.56	£24.28
		Graduation: 0.01mm		
WX31756	50-100-050	25 - 50mm	£29.07	£27.62
		Graduation: 0.01mm		
WX31757	50-100-075	50 - 75mm	£34.68	£32.94
		Graduation: 0.01mm		
WX31758	50-100-100	75 - 100mm	£39.52	£37.54
		Graduation: 0.01mm		
WX31759	50-100-125	100 - 125mm	£45.79	£43.50
		Graduation: 0.01mm		
WX31760	50-100-150	125 - 150mm	£51.21	£48.64
		Graduation: 0.01mm		

Imperial Micrometer Series 103



Mitutoyo

- Enamelled frame economy imperial micrometers
- Tungsten tipped measuring faces
- Clear graduations on satin chrome finish
- Suitable for all external measurements in either workshop or inspection departments

Order Code	Product Code	Description	1+	3+
WX20329	103-177	0 - 1"	£40.85	£38.80
		Graduation: 0.001 in		
WX20330	103-178H	1 - 2"	£51.14	£48.58
		Graduation: 0.001 in		
WX20331	103-179H	2 - 3"	£67.52	£64.14
		Graduation: 0.001 in		
WX20332	103-180H	3 - 4"	£75.71	£71.92
		Graduation: 0.001 in		

Digital Micrometers

Electronic Digital Micrometer



Roebuck

- This Micrometer features a clear LCD Display with 8mm digit sizes
- It has metric/inch conversion, a zero reset at any position, tungsten carbide anvils, spindle lock, plastic heat guard and a painted frame
- It is supplied in a fitted case as standard
- Specifications:-
Range: 0 - 25/ 0 - 1"
Resolution: Digital Display: 0.001mm/0.00005"
Resolution: Mechanical Thimble: 0.01mm
- Accuracy: 0.004mm

Price Each

Order Code	Product Code	Accuracy	Range	1+	6+
WX61104	2017364	0.004mm	0 - 25 / 0 - 1 in	£61.96	£58.86

Splash Proof Electronic Micrometer



Roebuck

- This micrometer provides protection against ingress of dust and splashed liquid
- Complete with friction thimble and spindle lock
- Large LCD display, automatic switch-off and tungsten carbide anvil faces

Price Each

Order Code	Product Code	Range	1+	6+
WX61105	030122	0-25 mm / 0 - 1 in	£93.15	£88.49

Digitronic Outside Micrometer IP54



- 201 Series from Moore & Wright protected to IP54 specifications
- Rugged steel design
- Large LCD display
- Absolute and Incremental modes
- Carbide measuring faces
- Ball attachment included

Price Each

Order Code	Product Code	Description	1+	6+
WX44000	MW201-01DAB Series 201		£78.50	£76.15
		Range: 0 - 25mm / 0 - 1", Resolution 0.001mm / 0.00005"		
WX44001	MW201-02DAB Series 201		£97.50	£94.58
		Range: 25 - 50mm / 1 - 2", Resolution 0.001mm / 0.00005"		
WX44002	MW201-03DAB Series 201		£106.00	£102.82
		Range: 50 - 75mm / 2 - 3", Resolution 0.001mm / 0.00005"		
WX44003	MW201-04DAB Series 201		£131.00	£127.07
		Range: 75-100mm / 3 - 4", Resolution 0.001mm / 0.00005"		

Digimatic Micrometer Series 293



Mitutoyo

- Easy to use digital micrometers
- Large LCD display for error free external measurements
- Imperial/metric conversion at the touch of a button
- Origin setting
- Auto power off
- Tungsten carbide tipped measuring faces

Price Each

Order Code	Product Code	Description	1+	3+
WX20355	293-344	0-25 mm / 0-1"	£140.70	£133.67

Graduation: 0.001mm

Digital Micrometer



Mitutoyo

- Simple to use digital micrometer
- Large LCD display
- Imperial metric conversion
- 215g lightweight construction
- Easy one handed operation

Price Each

Order Code	Product Code	Description	1+	3+
WX20356	293-832	0-25 mm / 0-1"	£90.62	£86.08

Graduation: 0.001 mm

Electronic digital micrometer



Roebuck NEW

- This micrometer features a clear LCD display, with easy metric/inch conversion
- It has relative & absolute modes, tungsten carbide anvils an auto power off after 5 minutes, friction thimble, spindle lock lever, plastic heat guard painted frame
- It is supplied with ball anvil attachment and a fitted case

Specifications :-

Range: 0-25mm / 0-1"

Resolution 0.001mm/0.00005"

accuracy 0.002mm

Price Each

Order Code	Product Code	1+	6+
WX61106	2017365	£67.97	£64.57

Internal Micrometers

Series 900 Internal Micrometers



- Each model comprises of:
- Measuring head
- Set of extension rods
- Spacing collar (to facilitate alternative measuring range)
- Complete with detachable extension handles
- Fitted case

Price Each

Order Code	Product Code	Description	1+	6+
WX32090	903M	50 - 310mm	£144.50	£140.17
WX32089	903	2 - 12"	£144.50	£140.17

Interchangeable Rod Series 141



Mitutoyo

- Interchangeable rods allow a large range of bores to be measured
- Clear graduations on satin chrome finish
- Includes handle for deep hole measurement
- Metric / imperial measurement options

Price Each

Order Code	Product Code	Description	1+	3+
WX20336	141-206	50 - 300mm	£183.75	£174.56

Range Minimum: 50mm, Range Maximum: 300 mm, Graduation: 0.01mm, Range: 50 - 300mm

WX20337	141-233	2 - 12"	£183.75	£174.56
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Range Minimum: 2 in, Range Maximum: 12 in, Graduation: 0.001 in, Range: 2 - 12"

Inside Micrometers



- Satin chrome ratchet spindle and sleeve
- Microfine graduations for accurate reading
- Spindle locking screws
- Conforms to BS 870 for accuracy
- Supplied with setting rings on product codes 50-350-075 and 50-530-100

Price Each

Order Code	Product Code	Description	1+	3+
WX31778	50-350-030	0 - 25mm	£74.48	£70.76

Range: 0 - 25mm, Graduation: 0.01 mm

WX31779	50-350-050	25 - 50mm	£80.56	£76.53
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Range: 25 - 50 mm, Graduation: 0.01 mm

WX31776	50-350-001	0 - 1"	£74.48	£70.76
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Range: 0 - 1", Graduation: 0.001"

WX31777	50-350-002	1 - 2"	£80.56	£76.53
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Range: 1 - 2", Graduation: 0.001"

Depth Micrometers

LTL Depth Micrometers



- Satin chrome micrometer head
- Hardened and ground base
- Flat ended anvils 4.5mm dia.
- Metric reading: 0.01mm, Inch reading 0.001"

Price Each

Order Code	Product Code	Description	1+	3+
WX31764	50-170-025	0 - 25mm	£45.50	£43.23

Graduation: 0.01mm

WX35113	50-175-100	0 - 100mm	£98.33	£93.41
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Graduation: 0.01mm

WX31763	50-170-001	0 - 1"	£65.36	£62.09
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Graduation: 0.001"

WX31765	50-175-006	0 - 6"	£129.39	£122.92
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Graduation: 0.001"

Depth Gauge Micrometers



- Interchangeable depth rods, 4mm diameter
- 63.5mm /2.5in base length
- Accuracy to BS6468

Price Each

Order Code	Product Code	Description	1+	3+
WX32088	891M150	0 - 150mm	£162.50	£157.63

Graduation: 0.01mm

WX32087	891-6	0 - 6"	£158.00	£153.26
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Graduation: 0.001 in

**Can't see it
here, just call
0870 240 2100**

Digital Depth Micrometers



- Friction thimble for easy one handed use
- Range: 0-150mm / 0-6"
- Base size: 100mm wide
- Complete with 6 flat end depth rods
- Dia of rods 4.5mm
- Tolerance, relative and absolute modes
- True inch/metric conversion at the touch of a button
- Resolution: 0.001mm & 0.0005"
- Satin chrome frame and thimble

Price Each

Order Code	Product Code	Description	1+	3+
WX35114	50-890-006	0-150mm (0-6")	£192.85	£183.21

Micrometer Accessories

Ball Attachment



- Attachment for conventional micrometers to enable the measurement of concave surfaces
- Suitable for models up to 150mm / 6"
- Metric version has 5mm ball
- Imperial version has 0.2" ball

Price Each

Order Code	Product Code	Description	1+	3+
WX20323	101468E	Imperial	£5.15	£4.89
WX20324	101468M	Metric	£5.15	£4.89

Measuring Sets

Measuring Set



- 3 piece measuring kits
- Contents:
- Dial Caliper (metric or inch)
- Mechanical Micrometer (metric or inch)
- 1 x Metric / Inch rule

Price Each

Order Code	Product Code	Description	1+	4+
WX31782	50-610-025	Metric	£66.12	£62.81
WX31781	50-610-001	Imperial	£66.12	£62.81

6 Piece Measuring Set



- Useful set of precision measuring instruments.
- Contents include:
- Spring Divider
- Outside Caliper
- Inside Spring Caliper
- Depth Gauge
- Slide Rule
- Sliding Caliper

Price Each

Order Code	Product Code	Description	1+	6+
WX20768	59110	6 Pc Set	£25.40	£23.90

Gauges

Bore Gauges

Bowers 3 Point Metric Bore Gauges



- XT Analogue Bowers XT Analogue Bore Gauges are an economical solution to accurate shop-floor bore measurement
- The extended mechanical travel of these advanced two or three point gauges ensures that exchanging measuring anvils is now unnecessary
- Range 2 – 300mm (0.080" – 12")
- 2 – 6mm 2 point/ 6 – 300mm 3 point measurement
- Graduation 2-6mm: 0.001mm, 6-300mm: 0.005mm
- Tungsten carbide measuring faces on all 3-point heads from 12.5mm
- Blind bore measurement from 2mm – 6mm and above 12.5mm (0.500")
- Extensions available above 6mm for deep hole measurement
- Ratchet stop to ensure consistent measurement
- Setting rings included with individual instruments and sets
- UKAS certificates supplied as standard with all setting rings
- UKAS Certificate supplied as standard with all XT mechanical micrometers
- Heads with special anvils available to suit specific customer requirements (e.g. groove measurement)
- Bore gauges manufactured according to DIN 863, part 4

Bowers 3 Point Imperial Bore Gauges



- XT Analogue Bowers XT Analogue Bore Gauges are an economical solution to accurate shop-floor bore measurement
- The extended mechanical travel of these advanced two or three point gauges ensures that exchanging measuring anvils is now unnecessary
- Range 2 – 300mm (0.080" – 12")
- 2 – 6mm 2 point/ 6 – 300mm 3 point measurement
- Graduation 2-6mm: 0.001mm, 6-300mm: 0.005mm
- Tungsten carbide measuring faces on all 3-point heads from 12.5mm
- Blind bore measurement from 2mm – 6mm and above 12.5mm (0.500")
- Extensions available above 6mm for deep hole measurement
- Ratchet stop to ensure consistent measurement
- Setting rings included with individual instruments and sets
- UKAS certificates supplied as standard with all setting rings
- UKAS Certificate supplied as standard with all XT mechanical micrometers
- Heads with special anvils available to suit specific customer requirements (e.g. groove measurement)
- Bore gauges manufactured according to DIN 863, part 4

Price Each

WX38609	XTA6I	1/4 - 5/16"	£203.50	POA
Accuracy: 0.00015"	Setting Ring: .312"			
WX38613	XTA8I	5/16 - 3/8"	£211.50	POA
Accuracy: 0.00015"	Setting Ring: .312"			

WX38609	XTA6I	1/4 - 5/16"	£203.50	POA
Accuracy: 0.00015", Setting Ring: .312"				
WX38613	XTA8I	5/16 - 3/8"	£211.50	POA
Accuracy: 0.00015", Setting Ring: .312"				
WX38593	XTA10I	3/8 - 1/2"	£218.00	POA
Accuracy: 0.00015", Setting Ring: .500"				
WX38595	XTA12I	1/2 - 5/8"	£218.00	POA
Accuracy: 0.00015", Setting Ring: .750"				
WX38597	XTA16I	5/8 - 3/4"	£222.00	POA
Accuracy: 0.00015", Setting Ring: .750"				
WX38599	XTA20I	3/4 - 1"	£242.00	POA
Accuracy: 0.00015", Setting Ring: 1.375"				
WX38601	XTA25I	1 - 1.3/8"	£338.50	POA
Accuracy: 0.00015", Setting Ring: 1.375"				
WX38603	XTA35I	1.3/8 - 2"	£344.50	POA
Accuracy: 0.00015", Setting Ring: 1.375"				
WX38605	XTA50I	2 - 2.5/8"	£410.50	POA
Accuracy: 0.00020", Setting Ring: 2.625"				
WX38607	XTA65I	2.5/8 - 3.1/4"	£410.50	POA
Accuracy: 0.00020", Setting Ring: 2.625"				
WX38611	XTA80I	3.1/4 - 4"	£520.50	POA
Accuracy: 0.00020", Setting Ring: 3.250"				
WX38591	XTA100I	4 - 5"	£539.00	POA
Accuracy: 0.00020", Setting Ring: 5.000"				

Telescopic Gauges 315 Series



- For quick inside measurement and determination of inside diameters
- Spring loaded plunger that expands in the bore or groove
- Satin chromed body
- With auto extension and direct locking
- Measuring faces are hardened and micro-lapped
- Range:-
8-12.7mm
12.7-19.0mm
19.0-32.0mm
32.0-54.0mm
54.0-90.0mm
90.0-150.0mm

Price Each

Order Code	Product Code	Description	1+	3+
WX44007	MW315.01	Metric	£75.50	£73.24

Telescopic hole gauge set



Contact Brammer on 0870 240 2100

Roebuck NEW

- Provide easy and accurate measurement of holes and slots
- Two plungers under equal and constant spring pressure can be locked between the walls of a slot or across the diameter of a hole and measured by caliper or micrometer
- Hardened and ground tips

Price Each

Order Code	Product Code	Capacity	Range	1+	6+
WX61109	031070	8-150 mm	5/16 - 6	£93.89	£89.20

Hole / Depth Gauges

Thickness Gauges

Snapcal Digital Caliper



- Spring-loaded travel
- Inch/mm conversion
- Wide faced flat jaw for easy positioning
- Hardened stainless steel construction
- Supplied in rugged holster
- Accuracy: +/-0.02mm/0.001"

Price Each

Order Code	Product Code	Description	1+	3+
WX44008	MW461-01D	0-30mm/0-1.25"	£67.00	POA

Resolution: 0.01mm / 0.0005"

Mini Thickness Gauge Series 7



Mitutoyo

- Compact pocket size Digimatic Thickness Gauge
- Ideal for measuring paper, plastic, sheet, metal and film
- Metric / Imperial conversion
- Measuring faces are hardened ground and lapped

Price Each

Order Code	Product Code	Description	1+	3+
WX20369	700-118	0 - 12mm	POA	POA

Resolution: 0.01 mm, Accuracy: +/-0.02mm/0.001"

Electronic Thickness Gauges

USB Datalogging Coating Thickness Meter



- The DT-156 is a compact coating thickness meter and measures the thickness of coatings on ferrous and non-ferrous metallic substrates. Example coatings include paint, lacquer, plastic, rubber and epoxy. The sensor is integral to the instrument. A USB interface facilitates the download of measurements for comparison tests and record keeping.
- Measure microns 0 to 1250µm
- Automatic recognition of Ferrous or Non-Ferrous substrate
- Continuous or single measurements.
- Statistic display of Average, Maximum and Minimum
- Memory for 400 readings as single or group
- Hi and Lo alarm
- Compact and robust integral sensor built in
- Auto Power Off
- Low Battery Indicator
- USB interface for data output to PC or Laptop
- User calibration using supplied calibration foils and base plates
- Will measure on substrate curvatures of:
1.5mm Ferrous, 3mm Non-Ferrous
- Supplied with 1 ferrous & 1 non-ferrous base plate, calibration foils, software, USB connection cable, carry case and batteries
- 2 year warranty
- CALIBRATION**
Calibration Certificates are available for both the instrument and the calibration foils
- Technical Specifications**
Range Up to 1,250µm (micron)
Resolution 0.1 Low Range, 1µm High Range
Accuracy ±3%+1 of reading
Min Measuring Area 7mm Ferrous, 5mm Non-Ferrous
Min base thickness 0.5mm Ferrous, 0.3mm Non-Ferrous
Power 2 x AA 1.5V Alkaline Batteries (LR-6)
Dimensions 114 x 55 x 27mm
Weight 1101g

Price Each

Order Code	Product Code	1+	4+
WX61110	DT-156	£150.00	£144.00

‡ Special delivery applies. Please call for details

Please see
the Abrasive
and Cutting
Tools section
for all your
power tool
accessories

RS-232 Ultrasonic Material Thickness Gauge



- The TD-225 can accurately measure the thickness of steel (ferrous metals) using sophisticated non-invasive ultrasonic's. Using the RS-232C interface and software results can be logged on a computer
- Impact-resistant ABS case with integral calibration plate
- RS-232C data output for PC connection
- User selectable between mm and inches
- 30mm LCD display with function indicators
- Auto Power Off function
- 2 years warranty
- Supplied with 4 x 1.5v AA batteries, control plate, calibration foils, 10mm Ø sensor, range 1 to 225mm (max 50°C) & hard carry case
- Software and PC connection cable optional (TD-01)
- Optional Sensors Available:
TB-US01 6mm Ø probe for thin material, range 1 to 50mm (max 50°C)
TB-US02 12mm Ø probe for hot work up to 300°C, range 1 to 225mm
- Technical Specifications
Range 1.2 to 225mm (Steel)
Resolution 0.1mm
Accuracy $\pm 0.5\%$ of the measured value
Power 2 x 1.5V AA Alkaline Batteries (MLR-6)
Dimensions 120 x 62 x 30mm
Weight 164g

Price Each

Order Code	Product Code	1+	4+
WX53557	TD-225	£352.00	£337.92
WX53558	TB-US01	£160.00	£153.60
WX53559	TB-US02	£314.88	£302.28
WX53560	TD-01	£96.00	£92.16
WX53561	TG-GEL	£5.75	£5.52

‡ Special delivery applies. Please call for details

Cygnus 2- Hands Free Ultrasonic Thickness Gauge



- Hands free multiple echo ultrasonic digital thickness gauge
- Measures metal thickness to determine wastage or corrosion - accurately, quickly and without removing protective coatings
- Taking metal thickness checks in areas where hands free operation is necessary for instance:
Where either rope access Ladder or scaffold work is necessary
Cranes
Hoppers
Containers
Pylons
High Structures
Ships
- Measurement Range:
3 - 250 mm with 2.25 MHz Probe
2 - 150 mm with 3.5 MHz Probe
1 - 50 mm with 5 MHz Probe
Accuracy $\pm 0.05\text{mm}$
Power 2 x AA alkaline batteries 20 hours continuous use

Environmental Protection IP 65 and IP67

- Comes as a complete Kit with 1 probe 1 lead 2 sets of batteries carry case and protective case
- Call for more details

Price Each

Order Code	Product Code	1+
WX53577	002-7140/4	£1,545.00

‡ Special delivery applies. Please call for details

Imperial Feeler Gauge

Price Each

Order Code	Product Code	Description	1+	3+
WX32091	911	4" Length	£7.13	£6.75
		Width: 0.5 in, Range: 0.015 - 0.025 in		
WX35129	1106	6" Length	£23.28	£22.05
		Width: 0.5 in, Range: 0.015 - 0.025 in		
WX35130	1112	12" Length	£30.88	£29.25
		Width: 0.5 in, Range: 0.015 - 0.025 in		

Feeler Gauges

Feeler Gauge Sets

Roebuck NEW

- Precision gauges with taper steel blades, hardened and polished
- Each blade is marked with size and folds into the polished metal case

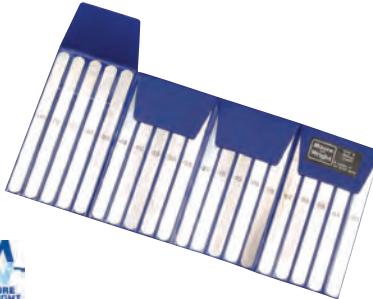
Price Each

Order Code	Product Code	Length of Blade	Size Range	1+	6+
WX61111	230623	100 mm/4 in	0.05 - 1.00 mm	£9.10	£8.65
WX61112	230624	100 mm/4 in	0.002-0.035"	£9.10	£8.65

Feeler Gauges



Feeler Strip Sets



- 20 Piece Feeler strips in wallet
- Hardened, tempered and polished

Price Each

Order Code	Product Code	1+	3+
WX32108	FS20M	Metric	£33.73
		Length: 150 mm, Range: Metric	£31.95
WX32107	FS20E	Imperial	£33.73
		Length: 6 in, Range: Imperial	£31.95

Feeler Gauge Sets Series 184

Mitutoyo CALIBRATION Available ✓

- Made from finest tempered steel
- Size clearly stamped on each leaf
- Leaves are easily removed
- All leaves can be individually locked open
- Metric set contains 22 sizes 0.05-1mm in 0.05mm steps

Price Each

Order Code	Product Code	Description	1+	3+
WX20351	184-304S	Metric	£23.73	£23.03

Metric Feeler Strip

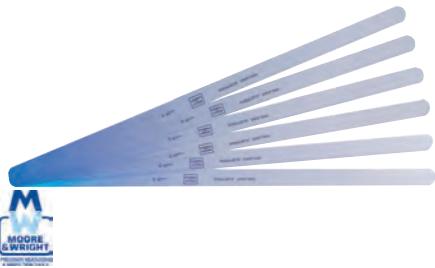




- Complies with DIN2275
- Standard features include:
- Hardened, tempered and polished steel strip
- Nominal thickness is marked on each strip
- Length 300mm
- Width 12.7mm

Order Code	Product Code	Thickness	Price Each
			1+ 3+
WX35153	126M003	0.03mm	£2.85 £2.70
WX35154	126M004	0.04mm	£2.85 £2.70
WX35155	126M005	0.05mm	£2.85 £2.70
WX35156	126M006	0.06mm	£2.85 £2.70
WX35157	126M007	0.07mm	£2.85 £2.70
WX35158	126M008	0.08mm	£2.85 £2.70
WX35159	126M009	0.09mm	£3.80 £3.60
WX35160	126M010	0.10mm	£3.80 £3.60
WX35161	126M015	0.15mm	£3.80 £3.60
WX35162	126M020	0.20mm	£3.80 £3.60
WX35163	126M025	0.25mm	£3.80 £3.60
WX35164	126M030	0.30mm	£3.80 £3.60
WX35165	126M035	0.35mm	£3.80 £3.60
WX36166	126M040	0.40mm	£3.80 £3.60
WX35167	126M045	0.45mm	£3.80 £3.60
WX35168	126M050	0.50mm	£5.70 £5.40

Imperial Feeler Strip



- Complies with DIN2275
- Standard features include:
- Hardened, tempered and polished steel strip
- Nominal thickness is marked on each strip
- Length 12" (inch)
- Width 0.5" (inch)

Order Code	Product Code	Thickness	Price Each
			1+ 3+
WX35133	126/0001	0.001"	£2.95 £2.79
WX35134	126/00015	0.0015"	£2.95 £2.79
WX35135	126/0002	0.002"	£2.95 £2.79
WX35136	126/0003	0.003"	£2.95 £2.79
WX35137	126/0004	0.004"	£3.80 £3.60
WX35138	126/0005	0.005"	£3.80 £3.60
WX35139	126/0006	0.006"	£3.80 £3.60
WX35140	126/0007	0.007"	£3.80 £3.60
WX35141	126/0008	0.008"	£3.80 £3.60
WX35142	126/0009	0.009"	£3.80 £3.60
WX35143	126/0010	0.010"	£3.80 £3.60
WX35144	126/0012	0.012"	£3.80 £3.60
WX35145	126/0013	0.013"	£3.80 £3.60
WX35146	126/0014	0.014"	£3.80 £3.60
WX35147	126/0015	0.015"	£3.80 £3.60
WX35148	126/0016	0.016"	£3.80 £3.60
WX35149	126/0017	0.017"	£3.80 £3.60
WX35150	126/0018	0.018"	£3.80 £3.60
WX35151	126-0019	0.019"	£5.70 £5.40
WX35152	126-0020	0.020"	£5.70 £5.40

5" Metric Steel Feeler Gage Poc-Kit



PRECISION BRAND

- POC-KITS® contains twenty 1/2" wide blades
- Packaged in a sturdy, vinyl case
- Individual blade pockets
- Conveniently folds flat
- Each blade is clearly etched with inch and metric sizes
- Ends are rounded and edges are smooth for safety
- Vinyl case helps prevent rust and extends blade life
- Contents:

.001"/.025mm	.010"/.254mm
.0015"/.038mm	.012"/.305mm
.002"/.051mm	.014"/.356mm
.003"/.076mm	.015"/.381mm
.004"/.102mm	.016"/.406mm
.005"/.127mm	.018"/.457mm
.006"/.152mm	.020"/.508mm
.007"/.178mm	.022"/.559mm
.008"/.203mm	.024"/.610mm
.009"/.229mm	.025"/.635mm

Price Each

Order Code	Product Code	Description	1+	6+
WX44009	77-119-740	5" Kit	£36.67	£34.74

Stainless Steel POC-KIT® Assortment



PRECISION BRAND

- Contains twenty 5" long x 1/2" wide blades
- Contains sixteen different thicknesses; duplicate blades have been included on the four most commonly used thicknesses
- Packaged in a sturdy, vinyl case which extends blade life
- Individual blade pockets
- Conveniently folds flat
- Each blade is clearly etched with inch and metric sizes
- Ends are rounded and edges are smooth for safety
- Contents:

Qty	Sizes	Qty	Sizes
2	.001"/.025mm	1	.008"/.203mm
2	.0015"/.038mm	1	.009"/.229mm
2	.002"/.051mm	1	.010"/.254mm
2	.003"/.076mm	1	.012"/.305mm
1	.004"/.102mm	1	.015"/.381mm
1	.005"/.127mm	1	.020"/.508mm
1	.006"/.152mm	1	.025"/.635mm
1	.007"/.178mm	1	.031"/.787mm

Price Each

Order Code	Product Code	Description	1+	6+
WX44011	77-177-750	20 x 5" Kit	£127.30	£120.60

Easy ordering

by phone, fax,

email, web

or via your

local Brammer

Sales and

Service Centre

PRECISION BRAND

- POC-KITS® contains twenty 1/2" wide blades
- Packaged in a sturdy, vinyl case
- Individual blade pockets
- Conveniently folds flat
- Each blade is clearly etched with size in metric and inches
- Ends are rounded and edges are smooth for safety
- Vinyl case helps prevent rust and extends blade life
- Contents:

.001"/.025mm	.010"/.254mm
.0015"/.038mm	.012"/.305mm
.002"/.051mm	.014"/.356mm
.003"/.076mm	.015"/.381mm
.004"/.102mm	.016"/.406mm
.005"/.127mm	.018"/.457mm
.006"/.152mm	.020"/.508mm
.007"/.178mm	.022"/.559mm
.008"/.203mm	.024"/.610mm
.009"/.229mm	.025"/.635mm

Price Each

Order Code	Product Code	Description	1+	6+
WX44010	77-119-990	12" Kit	£83.22	£78.84

Plastic Thickness Gauge Assortments



PRECISION BRAND

- Contains thirteen blades riveted together for on-site convenience
- Made of the highest quality plastic material
- .001" to .005" - Polyester
- .0075" to .030" - Vinyl
- 1/2" wide blades are available in 5" & 12" lengths
- Color indicates thickness
- Packaged in a sturdy vinyl case
- Non-corrosive, non-conductive, non-sparking and non-marring
- Individual blades are also available on special order
- Both sets contain:

Thickness	Color	Thickness	Color
.001"/.025mm	Amber	.010"/.254mm	Brown
.0015"/.038mm	Purple	.0125"/.318mm	Black
.002"/.051mm	Red	.015"/.381mm	Pink
.003"/.076mm	Green	.020"/.508mm	Yellow
.004"/.102mm	Tan	.025"/.635mm	White
.005"/.127mm	Blue	.030"/.762mm	Coral
.0075"/.191mm	Matte		

Price Each

Order Code	Product Code	Description	1+	6+
WX44012	77-178-905	5" Plastic Assortment	£33.82	£32.04
WX44013	77-178-900	12" Plastic Assortment	£50.83	£48.15

Brass POC-KIT® Assortment



PRECISION BRAND

- Contains twenty 5" long x 1/2" wide blades
- Manufactured from 260 alloy
- Packed in a sturdy, vinyl case which extends blade life
- Individual blade pockets
- Conveniently folds flat
- Each blade is clearly etched with inch and metric sizes
- Ends are rounded and edges are smooth for safety
- Set contains:

.001"/.025mm	.010"/.254mm
.0015"/.038mm	.012"/.305mm
.002"/.051mm	.014"/.356mm
.003"/.076mm	.015"/.381mm
.004"/.102mm	.016"/.406mm
.005"/.127mm	.018"/.457mm
.006"/.152mm	.020"/.508mm
.007"/.178mm	.022"/.559mm
.008"/.203mm	.025"/.635mm
.009"/.229mm	.030"/.762mm

Price Each

Order Code	Product Code	Description	1+	6+
WX44014	77-176-740	Brass Assortment	£101.65	£96.30

Feeler Stock In Roll With Dispenser Case



Starrett

- Rewind feature permits retracting thinner feeler stock into the case, preventing damage
- Case provides the ability to snip off the desired length without any waste
- In a compact, sturdy plastic rewindable dispenser case handles stock up to 0.015"

Price Each

Order Code	Product Code	1+	3+
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WX53637 ‡	666M-3	0.03mm	£56.17
WX53638 ‡	666M-4	0.04mm	£41.61
WX53639 ‡	666M-5	0.05mm	£41.61
WX53640 ‡	666M-6	0.06mm	£41.61
WX53641 ‡	666M-8	0.08mm	£41.61
WX53642 ‡	666M-10	0.10mm	£41.61
WX53643 ‡	666M-15	0.15mm	£41.61
WX53644 ‡	666M-20	0.20mm	£35.58
WX53645 ‡	666M-25	0.25mm	£35.58
WX53646 ‡	666M-30	0.30mm	£35.58
WX53647 ‡	666M-35	0.35mm	£35.58
WX53648 ‡	666M-40	0.40mm	£33.05
WX53649 ‡	666M-45	0.45mm	£33.05
WX53650 ‡	666M-50	0.50mm	£39.90
WX53651 ‡	666-1	0.001"	£52.42
WX53652 ‡	666-1.1/2	0.0015"	£42.48
WX53653 ‡	666-2	0.002"	£36.47
WX53654 ‡	666-2.1/2	0.0025"	£36.47
WX53655 ‡	666-3	0.003"	£36.47
WX53656 ‡	666-4	0.004"	£36.47
WX53657 ‡	666-5	0.005"	£34.43
WX53658 ‡	666-6	0.006"	£34.43
WX53659 ‡	666-7	0.007"	£34.43
WX53660 ‡	666-8	0.008"	£28.46
WX53661 ‡	666-9	0.009"	£28.46
WX53662 ‡	666-10	0.010"	£28.46
WX53663 ‡	666-11	0.011"	£28.46
WX53664 ‡	666-12	0.012"	£28.46
WX53665 ‡	666-13	0.013"	£28.46
WX53666 ‡	666-14	0.014"	£28.46
WX53667 ‡	666-15	0.015"	£28.46
WX53668 ‡	666-16	0.016"	£27.86
WX53669 ‡	666-17	0.017"	£27.86
WX53670 ‡	666-18	0.018"	£27.86
WX53671 ‡	666-19	0.019"	£27.86
WX53672 ‡	666-20	0.020"	£29.84
WX53673 ‡	666-21	0.021"	£29.84
WX53674 ‡	666-22	0.022"	£29.84
WX53675 ‡	666-23	0.023"	£29.84
WX53676 ‡	666-24	0.024"	£29.84
WX53677 ‡	666-25	0.025"	£29.84

Brass Thickness/Feeler Gauge



- Anti-magnetic brass leaves

- Nominal size marked

- Conical leaf 13 x 100mm

- Frame with locking screw

- Delivered in individual packages

- Sizes:

5150-502: 0.05–0.50 0.05 / 0.10 / 0.15 / 0.20 / 0.25 / 0.30 / 0.40 / 0.50

5150-503: 0.05–1.00 0.05 / 0.10 / 0.15 / 0.20 / 0.25 / 0.30 / 0.40–1.00

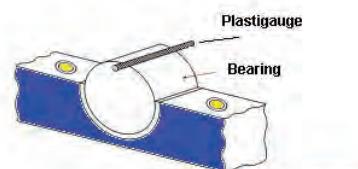
5150-504: 0.05–1.00 0.05 / 0.10–1.00

Price Each

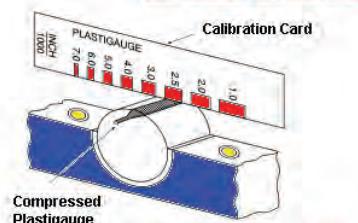
Order Code	Product Code	Description	1+	3+
WX53627	5150-502	8 Leaves, 0.05–0.50	£6.08	£5.77
WX53628	5150-503	13 Leaves, 0.05–1.00	£9.38	£8.92
WX53629	5150-504	20 Leaves, 0.05–1.00	£14.18	£13.48

Clearance Gauges

Plastigauge



BEFORE COMPRESSION



AFTER COMPRESSION



PLASTIGAUGE

- This provides a simple but accurate method for measurement of running/static clearance between hidden surfaces, such as big end or mains bearings, pipe flanges, head gasket, high spots, housings, injection moulding tools etc.
- Can highlight, clearance, lobing, ovality on shafts
- Volumetric measurement takes surface roughness into account
- Calibration card supplied
- Clearance measurement 0.001in. to 0.020in. (0.025 to 0.5mm) can be taken
- Non-corrosive and oil soluble

Order Code	Product Code	Description	1+	12+
WX38683	PL-A	0.001" - 0.007"	£33.59	£31.47
Range: 0.025 - 0.175mm				
WX38684	PL-B	0.004" - 0.010"	£52.49	£47.24
Range: 0.100 - 0.250mm				
WX38685	PL-C	0.007" - 0.020"	£52.49	£47.24
Range: 0.175 - 0.500mm				
WX38686	PL-D	0.020" - 0.040"	£52.49	£49.34
Range: 0.500 - 1.00mm				

Screw pitch gauges



Roebuck NEW

- Will determine thread pitch of workpiece by matching blade teeth with thread
- Narrow designed blades permit use for internal and external threads, each blade is clearly marked with thread pitch, chosen blade can be locked in position for easy use
- All sets contain 28 blades and are protected in a sturdy steel case

Order Code	Product Code	Size range	Type	1+	6+
WX61113	030131	4 - 12 Plus 11, 11-1/2, Imperial/ 13, 16, 20, 32, 40, 56, metric 0.5 - 2.0mm, 2.0 - 5.0mm Plus 6mm		£12.94	£12.29
WX61114	030132	0.25 - 0.9mm 1 - 2.0mm Plus 1.25, 1.75 & 2.5mm		£15.90	£15.11
WX61115	030133	4 - 14, 16 - 20, 20 - 48, Imperial 48 - 80 Plus 4-1/2, 11-1/2 & 27		£19.35	£18.38

Screwpitch Gauges

Screw Pitch Gauges MW800 Series



- Accurately milled steel blades
- Designed to check both internal and external thread forms
- Marked with nominal size on each blade
- All blades fixed in a steel sleeve
- Screw cutting gauge included
- Code 809: ISO Metric 22 Blades 0.35, 0.4, 0.45, 0.5, 0.6, 0.7, 0.75, 0.8, 1.0, 1.25, 1.5, 1.75, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0 60 Degrees
- Code 799: American National 30 Blades 4, 4.5, 5, 5.5, 6, 7, 8, 9, 10, 11, 11.5, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42
- Code 800: Whitworth 28 Blades Threads per mm: 4, 4.5, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28 30, 32, 36, 40, 48, 60 55 Degrees
- Code 806: Unified 30 Blades Threads per mm: 4, 4.5, 5, 5.5, 6, 7, 8, 9, 10, 11, 11.5, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42

Order Code	Product Code	Description	1+	6+
WX53630	809	ISO Metric 22 Blades	£19.00	£18.00
WX53631	799	American National 30 Blades	£25.65	£24.30
WX53632	800	Whitworth 28 Blades	£20.90	£19.80
WX53633	806	Unified 30 Blades	£25.65	£24.30

Drill Gauges

Drill Gauges

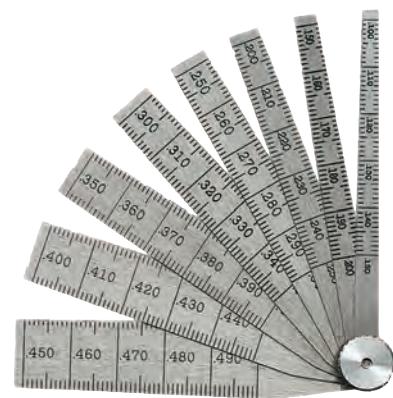


- Manufactured from hardened and ground steel
- Satin chrome finish

Order Code	Product Code	Description	1+	3+
WX31784	5075	57 Holes 1 - 5.9mm	£26.41	£25.02
WX31785	5076	30 Holes 1.5 - 12.5mm	£26.41	£25.02
WX31780	5052	29 Holes 1/16 - 1/2"	£25.18	£23.85

Taper Gauges

Starrett Taper Gauges Sets



Starrett

- These are named "taper" gages only because of their shape
- They do not measure taper, but they do measure hole and slot sizes
- They are quick to use, very accurate, and are a convenient size
- These gages are for determining hole sizes in dies and all kinds of other work
- They are read in 0.02mm
- Made of tempered steel, with a locking device for fixing any leaf in position for use
- 269MA: 2-12mm Range, 64mm Length, 10 Leaves, 0.02mm graduation
- 269MB: 12-25mm Range, 70mm Length, 13 Leaves, 0.02mm graduation

Order Code	Product Code	Description	1+	4+
WX42042	269MA	2-12 mm	£79.00	£77.00
WX42043	269MB	12-25 mm	£99.00	£96.00

Starrett Taper Gauges



Starrett

- These are named "taper" gages only because of their shape
- They do not measure taper, but they do measure hole and slot sizes
- The Starrett No. 270 Taper Gage is a very useful tool, especially for bearing work and for gaging slots
- The gage is made of quality tool steel 7/16" (11mm) wide by 6 1/4" (160mm) long and is accurately tapered throughout its entire length for quick and convenient measuring of slot widths, etc
- Although a bit expensive, this tool can and has been used as a precision shim
- One side is graduated from .010" to .150" in thousandths of an inch and the reverse side from 0.3mm to 4mm in one-twentieth of a mm (0.05mm)
- 47 piece workshop grade

Order Code	Product Code	Description	1+	4+
WX42044	270	Taper Gauge	£40.95	£39.38

For a full range of hand tools, see our Hand Tools section



47 pc Workshop Grade Gauge Block Set



Roebuck NEW

- These sets are manufactured from specially selected high quality, age hardened, alloy steel and housed in a fitted wooden case
- All sets are supplied with a 5 point UKAS (Namas) certificate
- Qty 1, Range 1.005mm
- Qty 20, Range 1.01 - 1.20mm, Steps 0.01mm
- Qty 7, Range 1.30 - 1.90mm, Steps 0.10mm
- Qty 9, Range 1.00 - 9.00mm, Steps 100mm
- Qty 10, Range 10.00 - 100.00mm, Steps 10.00mm

Price Each

Order Code	Product Code	1+	6+
WX61118	030578	£50.75	£48.21

Digital and Dial Indicators

Metric dial test indicator



Roebuck NEW

- Dial diameter 32mm
- Satin chrome indicator body with dovetail on all three sides
- Automatic reverse mechanism
- Adjustable bezel for easy reading, 250° lever position
- Fully jewelled movements
- 2mm diameter ball anvil stylus 14
- 5mm long
- Accuracy to DIN 22

Price Each

Order Code	Product Code	Graduation	Range	1+	6+
WX61117	032115	0.01 mm	0 - 0.8mm	£52.65	£50.02

Digital Indicators

Digital Dial Indicators



Roebuck NEW

- This electronic indicator combines the ease of digital reading with the applications of standard plunger dial indicators
- Dial diameter 60mm, with 8mm stem and lug back mounting, 3 button operation: on/off switch, imperial/metric conversion
- ± 0.03mm accuracy
- Resolution 0.01mm/0.0005in

Price Each

Order Code	Product Code	Range	1+	6+
WX61118	030578	10 mm / 0.4 in	£50.75	£48.21

Digital Indicators 405 Series



- Direct Inch / Metric conversion
- 58mm dial face
- Lugback and 8mm stem mountings
- Resolution 0.01m/0.0005"
- Absolute / Incremental reading
- Floating Zero

Price Each

Order Code	Product Code	Description	1+	3+
WX44015	MW405-04DB	0 - 12.7mm / 0.5"	£51.50	£49.96
		Accuracy: 0.02mm/0.0008"		
WX44016	MW405-06DB	0 - 25.0mm / 1.0"	£63.00	£61.11
		Accuracy: 0.03mm/0.0012		

ABS Digimatic Indicator Series 543



ABSOLUTE
Absolute Systems Powered by MITUTOYO

CALIBRATION
Available ✓

Mitutoyo

- Patented worldwide; the ABSolute Precision Function from Mitutoyo explained:-
- Calipers equipped with this system may operate and measure without having to start all over again at the zero point each time. You yourself establish the zero reference thus being able to display the absolute value of the measured length at each point. Which means in other words; you start at the zero point just once - this point will automatically be 'kept in mind' by the measuring instrument all the time even if its been switched off in between
- Tolerance setting
- Data output
- Magnified judgement results
- Large LCB display is easy to read and rotates through 330°
- Metric / Imperial conversion
- Data output

Price Each

Order Code	Product Code	Description	1+	3+
WX20365	543-251B	12.7mm	£280.05	£273.39

Resolution: 0.001mm, Accuracy: 0.003mm

IDU ABS Digimatic Indicator



ABSOLUTE
Absolute Systems Powered by MITUTOYO

CALIBRATION
Available ✓

Mitutoyo

- Patented worldwide; the ABSolute Precision Function from Mitutoyo explained:
- Calipers equipped with this system may operate and measure without having to start all over again at the zero point each time
- You yourself establish the zero reference thus being able to display the absolute value of the measured length at each point. Which means in other words; you start at the zero point just once - this point will automatically be 'kept in mind' by the measuring instrument all the time even if its been switched off in between
- Slim compact low cost design
- Metric / Imperial conversion
- Zero setting anywhere
- Data output
- Battery life approximately 1 years continuous use

Price Each

Order Code	Product Code	Description	1+	3+
WX20368	575-123	25mm	£138.60	£134.44

Resolution: 0.01mm

Standard Digimatic Indicator Series 543



ABSOLUTE
Absolute Systems Powered by MITUTOYO

CALIBRATION
Available ✓

Mitutoyo

- Compact economical Digital Indicator which can easily replace analog equivalents
- Large LCD display
- Metric / Imperial conversion
- Zero setting

Price Each

Order Code	Product Code	1+	3+
WX20366	543-682	£102.38	£99.30

Range: 12mm, Resolution: 0.01mm, Accuracy: 0.02mm

Dial Indicators

40Mm Dial Indicators



Roebuck NEW

- Dial size 40mm (1-9/16 in)
- Fitted with standard lug back and 8mm diameter stem, hardened and ground rack adjustable dial, bezel lock and tolerance pointers

Price Each

Order Code	Product Code	Grad- uation	Reading, display	Travel	Travel per revolution	1+	6+
WX61119	030677	0-100	0.01mm	5 mm	1 mm	£24.70	£23.47
WX61120	030568	0-100	0.001in	0.25 in	0.1 "	£24.70	£23.47

60mm Dial Indicators



Roebuck NEW

- Dial size 60mm/ 2-1/4 in diameter
- Fitted with standard lug back fitting, hardened and ground racks, adjustable dial, bezel lock and tolerance pointers

Price Each

Order Code	Product Code	Scale Divisions	Record Length	Travel Per Revolution	1+	6+
WX61121	032112	0.01	10.0 mm	1.0 mm	£22.33	£21.21
WX61122	032113	0.01	25.0 mm	1.0 mm	£34.51	£32.78

60mm Dial Indicators Imperial



Roebuck NEW

- Dial size 2-1/4 in diameter
- Fitted with standard lug back fitting, hardened and ground racks, adjustable dial, bezel lock and tolerance pointers

Price Each

Order Code	Product Code	Grad- uation	Reading, display	Travel	Travel per revolution	1+	6+
WX61123	032110	0 - 100	0.001 in	0.5 in	0.1	£22.33	£21.21
WX61124	032111	0 - 100	0.001 in	1.0 in	0.1	£24.33	£23.11

Dial indicators - long travel



Roebuck NEW

- Dial size 75mm (3in)
- Fitted with standard lug back and 8mm diameter stem, hardened and ground rack adjustable dial, bezel lock and tolerance pointers

Price Each

Order Code	Product Code	Grad- uation	Reading, display	Travel	Travel per revolution	1+	6+
WX61125	030569	0-100	0.01mm	50 mm	1 mm	£81.33	£77.26
WX61126	030570	0-100	0.001in	2 in	0.1 "	£80.85	£76.81

Shock proof dial indicator



Roebuck NEW

- Shockproof mechanism disengages the gear assembly from the rack, when the gauge spindle is exposed to sudden impact
- Bezel diameter 60mm
- Measuring range 10mm
- Graduated 0.01m
- Scale reading 0-100
- Adjustable dial & bezel lock
- Tolerance pointers
- Central lug back and 8mm stem

Price Each

Order Code	Product Code	1+	6+
WX61127	9848070	£27.38	£26.01

Dial Indicators

Dial Indicators



- Housings machined from solid brass
- 58mm face diameter
- Lapped stainless steel spindle and stem
- Robust design to suit workshop use
- Unbreakable Plexi-glass face

Price Each

Order Code	Product Code	Description	1+	3+
WX32104	DIP-222M	0 - 10mm	£33.50	£32.50
Graduation: 0.01 mm				
WX32105	DIP-232E	0- 0.4"	£33.50	£32.50
Graduation: 0.001"				

Dial Indicator



- Standard: DIN 878
- Satin-chromed body
- With Tungsten carbide measuring tip
- Shockproof
- Tolerance indicators
- Supplied with lug back
- Packed in foam box

Price Each

Order Code	Product Code	Description	1+	3+
WX38682	M400-06	0 - 10mm	£35.50	£34.44
Graduation: 0.01mm				

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Test & Measurement 2091

Dial Indicators Series 1



Mitutoyo
CALIBRATION Available ✓

- Constructed from aluminium channel sections and fitted with serrated non-slip treads
- Large non-slip platform
- Handrail not supplied as standard
- When handrails are supplied they are supplied separately for easy use

Price Each

Order Code	Product Code	Description	1+	3+
WX20333	1044F	Metric	£36.75	£35.65
Graduation: 0.01 mm, Range: 5mm				
WX20321	1411S	Imperial	£62.16	£60.30
Graduation: 0.001 in, Range: .25 in				

Dial Indicators Series 2



Mitutoyo
CALIBRATION Available ✓

- Conventional size easy to read indicator for most general applications
- Metric/Imperial options available
- Mitutoyo's most popular size Dial Indicator

Price Each

Order Code	Product Code	Description	1+	3+
WX20353	2046S	Metric	£31.92	£30.96
Graduation: 0.01 mm, Range: 10mm				
WX20354	2414S	Imperial	£59.96	£58.16
Graduation: 0.001 in, Range: 0.5 in				

Dial Indicators Series 513



Mitutoyo
CALIBRATION Available ✓

- Ideal for use where access is restricted, or for comparative measurements with stand
- 39mm face diameter, scratch resistant glare free crystal

- High sensitivity and quick response from jewelled bearings
- Non clutch type for automatic reversal of measuring direction
- Metric/Imperial option available

Price Each

Order Code	Product Code	Description	1+	3+
WX20362	513-402	Imperial	£72.87	£70.68
Graduation: 0.0005 in, Range: 0.03 in				
WX20363	513-404E	Metric	£73.08	£70.89
Graduation: 0.01mm, Range: 0.8mm				

Dial Indicators Plunger type



LTL

- 60mm diameter dial face
- Adjustable dial
- Bezel lock and tolerance pointers
- Scale reading 0 - 100mm
- Lug back & 8mm stem

Price Each

Order Code	Product Code	Description	1+	3+
WX31809	DG-M	Metric	£21.28	£20.16
Graduation: 0.01mm, Range: 10mm				
WX31808	DG-25M	Metric	£34.11	£32.31
Graduation: 0.01mm, Range: 25mm				
WX31806	DG-1/2S	Imperial	£21.28	£20.16
Graduation: 0.001", Range: 1/2"				
WX31807	DG-1S	Imperial	£23.28	£22.05
Graduation: 0.001", Range: 1"				

Dial Indicator Kits

Magnetic base & dial indicator kit



Roebuck NEW

- Magnetic base specifications: Magnetic base with solid cross arm
- Plunger indicators held by lug back or 8mm diameter stem
- Lever indicators held by spigot
- Overall height 230mm
- Switchable magnet has 40kg pull
- Dial indicator specifications: Adjustable dial
- Bezel diameter 60mm
- Hardened and ground racks
- Bezel lock
- Lug back fitted
- Tolerance pointers
- Travel 10mm
- Resolution 0.01mm

Order Code	Product Code	1+	6+
WX61128	1370735	£54.15	£51.44

Magnetic Bases

Magnetic Base Dial Indicator Stand



Roebuck NEW

- Overall height 230mm,
- Supplied with fine adjustment arm
- Main post 12mm diameter,
- Main post body clamp 12mm,
- Base size 45mm x 70mm x 50mm

Order Code	Product Code	1+	6+
WX61129	030498	£32.77	£31.13

Shock Proof Dial Indicators



LTL

- Adjustable dial and bezel lock
- Hardened and ground racks
- Lug back fitting
- Tolerance pointers
- Shockproof mechanism disengages the gear assembly from the rack, when the gauge is exposed to sudden impacts
- Central lug back and 8mm stem
- Scale reading 0-100

Price Each

Order Code	Product Code	Description	1+	3+
WX35127	DG-MSP	Metric	£28.03	£26.55
Graduation: 0.01 mm, Range: 0 - 10mm				

Magnetic base with snake arm



Roebuck NEW

- Provides clamping for plunger and lever indicators with spigots and stems between 1/8" and 1/2" diameter
- Flexible arm can be locked in any position by means of one lever
- Flexible arm fitted to ON/OFF switching magnet with 80 kilo pull
- Indicator not inc

Price Each

Order Code	Product Code	1+	6+
WX61130	9848088	£44.77	£42.53

Fine Adjustment Magnetic Base



Roebuck NEW

- Medium duty push button magnetic base,
- Three precision ground contact surfaces,
- Base dimensions: L:48, W:40, H:50mm,
- Clamping force: 290(N),
- Upright: Ø12mm chrome plated steel,
- Cross arm: Ø10mm chrome plated steel

Price Each

Order Code	Product Code	1+	6+
WX61131	1370740	£45.90	£43.61

Magnetic Stands

Mini Magnetic Stand



Mitutoyo

- Mini Magnetic Stand for applications with restricted access
- Permanent magnet with 15kgf magnetic pull
- Ideal for test indicators with 6mm or 8mm stems or dovetail fitting

Price Each

Order Code	Product Code	1+	3+
WX20322	7014	£54.08	£52.45

Standard Magnetic Stand Series 7



Mitutoyo

- Standard magnetic stand with cross arm
- On/off switch to release the magnet
- Suitable for stem diameters of 4.5mm, 8mm and 3/8 inch
- 60kgf magnetic pull

Price Each

Order Code	Product Code	1+	3+
WX20370	7010SN	£59.12	£57.34

Magnetic Base Stands



Noga

- Plunger indicators held by lug back or 8mm stem
- Lever indicators held by spigot
- Overall height 230mm
- Switchable magnetic base has 80 kilo pull
- Base size: 57 x 51 x 62mm

Price Each

Order Code	Product Code	Description	1+	3+
WX31813	MB-1	Solid Cross Arm	£30.02	£28.44
WX31814	MB-2	Fine Adjust	£32.11	£30.42

Mighty Magnetic Base



LTL

- Universal magnetic base
- Strong magnet with 45lbs of pulling power
- Zinc die cast housing
- 5 different locations for mounting accessories
- Clamps up to 8mm / 3/8" stems

Price Each

Order Code	Product Code	Description	1+	3+
WX35128	UMB-1	Mag Base	£7.89	£7.47

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Height Gauges

Vernier Height Gauges

Vernier height gauges



Roebuck NEW

- Beam and slide manufactured from hardened stainless steel
- The main and vernier scales are satin chrome with the sliding scale raised to prevent wear
- The gauge has a fine adjustment mechanism with a carbide tipped scriber
- Imperial and metric readings

Price Each

Order Code	Product Code	Graduation	Range	1+	6+
WX61132	033673	0.02mm/0.001in	300mm / 12"	£146.91	£139.56
WX61133	030127	0.02mm/0.001in	600mm / 24"	£216.00	£205.20

ON/ZERO: Power on/Zero Set
 MM/inch: MM/inch Conversion
 ADD+: Preset Plus
 SUB: Preset Minus
 Measuring Range: 300mm/12" & 600mm/24"
 Resolution: 0.01mm/0.0005"
 Repeatability: 0.01mm

- Zero setting anywhere
- Data output

Price Each

Order Code	Product Code	1+	3+
WX20367	570-245	POA	POA
Range: 300 mm, Resolution: 0.01 mm			

Order Code	Product Code	Range, measuring max	1+	6+	Price Each
WX61134	1370727	300mm / 12"	£275.49	£261.72	
WX61135	1370731	600mm / 24"	£419.21	£398.25	

Digital Height Gauge

Digital Height Gauge



- Heavy duty beam
- Handwheel for ease of use
- ABS/INC measurement
- Large LCD display
- Inch/mm conversion
- Positive lock carbide scriber
- Supplied in moulded case

Price Each

Order Code	Product Code	Description	1+	3+	Price Each
WX44017	‡ M191-30DAB	300mm (12")	£291.00	£282.27	
Resolution: 0.01mm/0.0005"					
WX44018	‡ M191-60DAB	600mm (24")	£384.50	£372.97	
Resolution: 0.01mm/0.0005"					

Surface Gauges

Surface Gauges



- Designed for precise marking out operations
- Hardened & tempered steel base, ground on one end and bottom face
- Vee groove for locating on cylindrical workpieces
- One handed fine adjustment
- Two retractable locating pin, supplied with 2 interchangeable pillars and one 4mm diameter scriber (code:10112)
- E101B : Base size: 80mm x 65mm, pillar height: 225mm & 300mm
- E102B : Base Size: 105mm x 85mm, pillar height: 300mm & 450mm

Price Each

Order Code	Product Code	Description	1+	3+
WX38678	‡ E101B	Small	£92.63	£87.75
WX38679	‡ E102B	Large	£143.45	£135.90

Electronic

Electronic Digital Height Gauge



Roebuck NEW

- Robust single column construction
- Clear LCD display with 14mm digits
- Hand wheel allows easy movement of measuring head
- Fine adjustment mechanism
- Contoured base provides improved handhold
- Tungsten carbide tipped scriber
- 5 Button operations:
OFF: Power Off

Digimatic Height Gauge Series 570



Mitutoyo

- Robust construction with thick column, provides highly repeatable measurements and stability
- Fine adjustment
- Clear LCD screen for error free reading
- Metric / Imperial conversion

Timers

Stopwatch 7.2mm Digit



- 7.2mm Digit Stopwatch
- 1/100 sec. precision with lap counter (for first 30 minutes)
- Calendar & time (12/24-hour format)
- Daily alarm and hourly chime
- Big digit display (digit height 7.2mm)
- Impact-resistant ABS case size: 64 x 53 x 19mm
- Supplied with battery and neck cord

Price Each

Order Code	Product Code	Description	1+	7+
WX38587	TM-136	Stopwatch	£2.75	£2.64

Inspection & Testing

Metal & Wire Detection

Cable Detector



FLUKE 

- The Fluke 2042 is a professional general purpose cable locator
- It is ideal for tracing cables in walls and underground, locating fuses/breakers on final circuits and locating interruptions and short-circuits in cables and electrical floor heating systems
- It can also be used for tracing metallic water and heating pipes
- The unit is supplied as a complete kit comprising of a transmitter and receiver in a purpose-made carry case
- For all applications (live or dead cables) without additional instruments
- Proven digitally coded sender signal guarantees clear signal identification
- Transmitter with LCD-display for transmitting level, transmitting code and external voltage
- Receiver with a backlight LCD-display for level of receiving signal, code of receiving signal and live voltage indication
- Automatic or manual adjustment of receiving signal sensitivity
- Switchable acoustic receiving signal and Auto-Power-Off
- Additional torch lamp function for working in dark environments
- Additional transmitters are available for extension or to distinguish between several signals
- Batteries transmitter: 6 pc batteries 1.5V
- Included accessories:
 - TL27 Heavy duty test lead set (2)
 - TP74 Lantern tip test probe set
 - AC285 alligator clip set
 - Soft carrying case & a hard case

Product: Transmitter
 Voltage Measurement Range: 12V 50V 120V 230V 400V
 Frequency Range: 0.60Hz

Output signal	125 kHz
Voltage	Up to 400V AC/DC
Batteries	6 pc Batteries 1.5V
Size	190 x 85 x 50 mm

Product:	Receiver
Tracing depth cable location	0-2.5m wall/underground cables
Main voltage detection	0-0.4m
Batteries	1 pc Battery 9V
Size	250 x 65 x 45mm

Price Each

Order Code	Product Code	1+	4+
WX38632	FLUKE-2042	£533.00	£515.81

Order Code	Product Code	Description	Price Each
WX43941	TKES1	Endoscope	£796.81

‡ Special delivery applies. Please ask for details

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Inspection

Video Borescope/Wireless Inspection Camera



EXTECH
INSTRUMENTS
A FLIR COMPANY

- 9mm camera diameter and 3.5" Colour TFT LCD Wireless Monitor
- Includes 2GB microSD memory card for capturing images (JPEG) or video (AVI) for viewing on your PC
- Detachable wireless colour display can be viewed from a remote location up to 32ft (10m) from measurement point
- 39" (1m) flexible goose-neck with waterproof camera (9mm diameter) and 4 built-in bright LED lights for illuminating dark areas
- Captured videos and images can be viewed on the wireless monitor or transferred to your PC via the microSD card or USB cable
- Menus in 10 languages: English, Chinese, German, French, Spanish, Portuguese, Italian, Japanese, Dutch, and Russian
- Complete with 4AA batteries, rechargeable display battery, microSD card with adaptor, USB and video cable, extension tools, 100-240V AC adaptor, stand and case
- Additional accessory of a 38" (0.96m) cable for increasing Viewing distance is available for purchase
- 19mm Diameter connector
- Maximum 2 extension cables can be connected to the borescope

Price Each

Order Code	Product Code	Description	1+
WX53586	BR250	Borescope	£264.00
WX53587	BR200-EXT	0.9m Extension Cable	£45.00

‡ Special delivery applies. Please ask for details

Endoscope TKES 1



SKF

The SKF Endoscope TKES 1 is a compact handheld instrument with a 3.5" TFT LCD screen which has the capacity of viewing, storing and reviewing still and video images. This is the perfect inspection tool to save time by reducing the need to disassemble items.

BRAMMER 

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Test & Measurement 2095

Endoscope TKES 10 Series


SKF **NEW**

First Line inspection tool for internal inspection of Machinery
Endoscope with semi-rigid tube
Endoscope with 2 way articulation

- SKF Endoscopes TKES 10 series are first line inspection tools that can be used for internal inspection of machinery. They help minimise the need to disassemble machinery for inspection, saving time and money. The compact display unit, with 3.5" backlit screen, allows images and video to be saved and recalled, or to be downloaded and shared with others. Three different models cater to most needs and are equipped with powerful variable LED lighting allowing inspections in dark locations. High resolution miniature camera, with up to 2TM digital zoom, gives a clear and sharp full screen image.
 - Available with a 1 metre (3.3 ft) insertion tube in three different variants; flexible, semi-rigid or with an articulating tip.
 - Small tip diameter of 5,8 mm (0.23 in.), with a wide field of view, allows easy access to most applications.
 - Supplied with a side view adapter allowing inspection of applications such as pipe walls.
 - Powerful magnets, and a tripod mount on the back of the display unit, allow the display unit to be used "hands free".
 - Up to 50 000 photos or 120 minutes of video can be stored on the SD memory card supplied.
 - Longer flexible and semi-rigid insertion tubes are available as accessories.
- Supplied in a sturdy carrying case complete with all necessary cables, universal mains charger and cleaning kit.

Price Each

Order Code	Product Code	Description	1+
WX61136 ‡	TKES-10F	Endoscope with Flexible Tube	£652.20
WX61137 ‡	TKES-10S	Endoscope with Semi Rigid Tube	£652.20
WX61138 ‡	TKES-10A	Endoscope with Articulating Tube	£1,043.52

‡ Special delivery applies. Please ask for details

Industrial USB Endoscope



- The USB Endoscope is ideal for inspecting areas that are hard to access and for the diagnosis of maintenance and repair problems:

- inspect air ducts, ventilators, machinery, engines and motors
- locate piping under floorboards and in wall cavities
- check filters and dampers in ducting
- check corrosion, friction wear or damage to internal components
- security inspections and customs & excise checks
- Robust and ergonomically designed digital video endoscope
- Flexible "gooseneck" probe adjusts easily to the shape required then remains rigid for one-handed use
- Focus wheel and snapshot button on the handle allow easy operation
- Waterproof camera head and cable
- Clip-on magnet attachment for recovery of small metal objects
- Excellent visibility with adjustable white LED lights
- High quality video and still images
- After connection to your PC or laptop the endoscope allows you to see real-time video on your computer screen and to record and save video files
- Still images can be taken at the touch of a button, displayed on the computer screen and saved easily
- Images and videos can be used in service reports to customers
- Image processing software runs on Windows 98, ME, 2000, XP & Vista
- Power is supplied by the computer's USB port. No batteries required
- Supplied with image processing software, magnet attachment and carry case

Technical Specifications

Lens 14mmØ, F#2.8, 54°angle of view

Focal distance 60mm to infinity

Camera 300K

Resolution 640 x 480 pixels

Picture rate Up to 30fps VGA

Dimensions 880mm x 8.5mmØ gooseneck probe, 2m USB cable

Price Each

Order Code	Product Code	Description	1+
WX45613 ‡	ENDS-USB1	Endoscope	£57.50

‡ Special delivery applies. Please ask for details

Video Borescope



- This portable video Borescope is designed as a remote inspection device, capable of recording video and taking still images. It is ideal for use in surveying pipes or other hard-to-reach places, equipment or furnishing installation, car repair etc. Features include IP67 water-proof 1m gooseneck and 9mmØ

camera lens, real-time recording, and micro SD card storage. It has a 70mm TFT colour display. The instrument can accept any micro SD card (not supplied) from 2GB up to 32GB, to capture still images (JPEG) or video (NTSC/PAL) for download to PC or laptop with date and time stamp. This can then be saved and used as attachments to emails or reports.

- 70mm TFT colour display 640 x 480 pixels
- Picture zoom function up to 3x standard
- Water-proof IP67 9mmØ camera head
- Glare free close-up and wide field of view
- PAL video output and cable
- 4 adjustable dual bright white LED lights
- 1m flexible gooseneck can be pre-formed to a configured shape
- Clip-on mirror, magnet and hook attachments for object retrieval
- The AVB-48 optional camera is HD format, giving Hi-contrast and exceptionally clear images.
- Supplied with 1m gooseneck and 9mmØ camera lens, USB download cable, AV video out cable, clip on mirror, magnet and hook attachments and carry case.
- Requires 4 AA Batteries

Technical Specification

- Focus Range 150 to 2,500mm to infinity
- Resolution: 640 x 480 pixels (colour LCD)
- Power: 4 x 1.5V AA Alkaline Batteries (ALR-6)
- Dimensions: 263 x 86 x 49mm (unit), 1m gooseneck, 9mmØ camera
- Weight: 420g
- Video Format: NTSC / PAL

Price Each

Order Code	Product Code	Description	1+
WX54208 ‡	VB-8823	Borescope	£175.00
WX54209 ‡	VB-48	5.8mmØ HD Gooseneck Camera	£125.00
WX54210 ‡	EXT-1	1m Gooseneck Extension	£25.00

‡ Special delivery applies. Please ask for details

Flexi Inspection Camera



- This state-of-the-art camera with a 2.4" TFT LCD colour viewing screen and 1M flexible probe with a 10mm diameter camera head illuminated by six high power LED's together give a picture of areas that are difficult to see with the naked eye - i.e. inside of cylinder chambers, vehicle door spaces, corrosion checks and many other uses in the automotive workshop
- Features a PAL video-out connection cable to allow real-time viewing or video recording
- Powered by four AA batteries (supplied separately)

Price Each

Order Code	Product Code	Description	1+
WX53579 ‡	13828	Inspection Camera	£146.06

‡ Special delivery applies. Please ask for details

USB Video Borescope with Wireless Display


NEW

- This portable video Borescope comes with a 90mm (3.5") TFT wireless colour display
- The 9mmØ camera and 1m flexible gooseneck are water-resistant
- Using a 2GB microSD card (Not Supplied) can captures still images (JPEG) or video (AVI) for download to a PC or laptop with a date and time stamp.

- These can then be saved and used as attachments to emails or reports.
- 90mm (3.5") TFT wireless colour display (up to 10m Transmission)
- Water-resistant IP-67 9mmØ camera head
- Glare free close up and wide field of view (45°)4 Adjustable dual bright white LED lights
- 1m flexible gooseneck can be preformed to a configured shape
- Clip-on mirror, magnet and hook attachments for object retrieval
- PAL video output and cable
- The VB-48 optional camera is HD Format giving Hi-Contrast and exceptionally clear sharp images
- Supplied with 1m gooseneck 9mmØ camera, USB download cable, AV out cable, clip-on mirror, magnet and hook attachments, carry case and AC/DC mains power charger
- ACCESSORIES**
EXT-1 1m Flexible Gooseneck Camera Extension
VB-48 5.8mmØ HD Gooseneck Camera
- Technical Specifications**
Focus Range 150 to 2,500mm to infinity
Video Format PAL
Resolution 640 x 480 pixels (colour LCD)
Power 4 x 1.5V AA Alkaline Batteries (LR-6)
AC/DC Mains Power Charger (Display)
Dimensions 185 x 145 x 40mm (Unit) 1m Gooseneck, 9mmØ Camera
Weight 525g

Price Each

Order Code	Product Code	Description	1+	6+
WX61139	VB-8803	Borescope	£195.00	
WX54209	VB-48	5.8mmØ HD Gooseneck Camera	£125.00	
WX54210	EXT-1	1m Gooseneck Extension	£25.00	

‡ Special delivery applies. Please ask for details

Colour Video Borescope with 9mm Camera Head



NEW

- This portable Borescope is designed as a remote inspection device. It is ideal for use in surveying pipes or other hard-to-reach places, equipment or furnishing installation, car repair, etc
- Features include IP67 waterproof 1m gooseneck and 9mmØ camera lens. It has a 60mm (2.4") TFT colour display

- 60mm (2.4") TFT colour display 480 x 234 Pixels
- Water-Proof IP-67 9mmØ camera head
- Glare free close up and wide field of view (36°)
- 8 Contrast settings
- 4 way rotation of picture on screen
- 4 Adjustable dual bright white LED lights
- 1m flexible gooseneck can be preformed to a configured shape
- Clip-on mirror, magnet and hook attachments for object retrieval
- The VB-48 optional camera is HD Format giving Hi-Contrast and exceptionally clear sharp images
- Supplied with 1m gooseneck 9mmØ camera, clip-on mirror, magnet and hook attachments. Requires 4 x AA batteries.

- ACCESSORIES**
EXT-1 1m Flexible Gooseneck Camera Extension (Max 3)
VB-48 5.8mmØ HD Gooseneck Camera
- Technical Specifications**
Focus Range Up to 1.5m
Resolution 480 x 234 pixels (colour LCD)
Power 4 x 1.5V AA Alkaline Batteries (LR-6)
Dimensions 201 x 83 x 59mm (Unit) 1m Gooseneck, 9mmØ Camera
Weight 385g

Price Each

Order Code	Product Code	Description	1+	6+
WX61140	VB-8805	Borescope	£120.00	
WX54209	VB-48	5.8mmØ HD Gooseneck Camera	£125.00	
WX54210	EXT-1	1m Gooseneck Extension	£25.00	
WX61141	C-3	Briefcase Style Carry Case	£47.60	

‡ Special delivery applies. Please ask for details

Inspection Mirror & Pick-up Kit



Roebuck NEW

- Kit containing:
- 1x telescopic mirror 150-500mm range
- 1x telescopic magnetic pick-up

Price Each

Order Code	Product Code	1+	6+
WX61142	1248901	£5.91	£5.61

Telescopic Magnetic Pick-up With LED Light



Roebuck NEW

- Telescopic magnetic pick-up with extension range of 190mm-810mm
- Magnet is capable of lifting up to 1.5kg/3.3lbs
- Bright LED light through magnet centre giving 360-degree illumination
- Non-slip moulded handle for oily or wet hands

Price Each

Order Code	Product Code	1+	6+
WX61143	1248902	£6.70	£6.37

Illuminated Pick-up Tool With Mirror



Roebuck NEW

- This product has been designed for viewing inaccessible and poorly lit areas
- The set consists of a 350mm flexible, semi-rigid chrome plated shank fitted threaded boss, which retains 1 of 3 mirrors provided (14 & 23 magnifying, 30mm diameter and plain, all set on a 25mm arm)
- The illumination is powered by AA batteries (not included)
- The set also includes a threaded magnetic pick-up that can be used instead of a mirror

Price Each

Order Code	Product Code	1+	6+
WX61144	1248899	£24.38	£23.16

Telescopic Pick-up with Light and Mirrors



Roebuck NEW

- Ideal for all kind of inspection work The Set Contents: 1 x Handle complete with Torch, Extending Aluminium Shaft and Magnetic side panel Handle length: with shaft in closed position 190mm, shaft extended 870mm 3 x Viewing Mirrors manufactured from lightweight, tough silvered plastic: 18 x 60mm, 45 x 68mm and 60 x 90mm 1 x Plastic Magnifier 2 x Magnetic Pickup Heads: 12mm & 20mm diameter

Price Each

Order Code	Product Code	1+	6+
WX61145	2017411	£28.84	£27.40

Inspection Mirror 55mm Diameter



Roebuck NEW

- This telescopic mirror has fully chromed telescopic shaft and articulated mirror mount
- Mirror can be set in any position for best viewing
- Specifications:-
Mirror diameter: 50mm
Fully extended length: 780 mm
Fully folded length: 200mm Handle:
Plastic grip 14mm diameter x 120mm long

Price Each

Order Code	Product Code	1+	6+
WX61146	2017410	£11.88	£11.29

470mm Flexible Shaft Inspection Mirror



DRAPER

- Fully flexible shaft and fixed head with mirror 55mm diameter to give good visibility in concealed areas
- Plated finish with plastic grip
- Display packed

Price Each

Order Code	Product Code	Description	1+	6+
WX35102	11954	470mm Mirror	£8.64	£8.13

560mm Flexible Magnetic Pick-up Tool



DRAPER

- Expert quality, chrome plated flexible shaft with plastic handle
- Removable protective cap over magnet
- Display packed

Price Each

Order Code	Product Code	Description	1+	6+
WX35104	52305	Pick-Up Tool	£11.66	£10.98

‡ Special delivery applies. Please ask for details



Contact Brammer on 0870 240 2100

Test & Measurement 2097

Stethoscope

**DRAPER**

- Suitable for detecting faults in engines, bearings and other moving parts
- Supplied complete with two probes 290mm long

Price Each

Order Code	Product Code	Description	1+	6+
WX38620	54503	Stethoscope	£16.90	£15.90

Magnification

Illuminated Eye Loupe

**Roebuck** NEW

- Black finished illuminated LED eye loupe
- 10x magnification
- Adjustable position bright LED light with on/off button

Price Each

Order Code	Product Code	1+	6+
WX61147	1248897	£9.95	£9.45

Pocket Magnifier Series 183

**Mitutoyo**

- Clear loupe pocket magnifier
- Handy instrument for localised magnification
- Available in:
- Slim pattern 25X
- Standard 25X
- Standard 50X

Price Each

Order Code	Product Code	Description	1+	3+
WX20347	183-201	25X slim	£66.15	£64.17
WX20348	183-202	25x	£135.45	£131.39
WX20349	183-203	50x	£144.90	£140.55

Professional Swing Arm Magnifying Lamp

**Clarke**
POWER PRODUCTS

- Spring balanced arms and locking knobs allow unit to be secured in any position
- Powerful 3 diopter lens (120mm diameter) gives excellent magnified viewing of intricate detail
- 22 Watt circular fluorescent tube illuminates the subject (230V)

Price Each

Order Code	Product Code	Description	1+	6+
WX35101	5460530	Mag Lamp	£44.17	£42.40

Folding Lens Magnifier

**Roebuck** NEW

- Provides high quality distortion free magnification
- Bonded 3 lens "Hastings Triplet" construction
- Lenses are recessed to protect from damage
- Swing away lenses are housed in polished chrome plated body
- Supplied with a leather case for added protection

Price Each

Order Code	Product Code	Magnification	1+	6+
WX61148	030157	10	£21.65	£20.57
WX61149	030158	10, 15	£37.48	£35.61
WX61150	030159	10, 15, 20	£56.70	£53.87

Hastings Triplet Type Magnifier

**LTL**

- High quality distortion free magnification
- Single lens 21mm/10x mag
- Double lens 18mm/10x mag + 12mm/15x mag
- 3 lens type 18mm/10x mag + 18mm/15x mag + 18mm/20x mag
- Magnification, Triple Magnifier

Price Each

Order Code	Product Code	Description	1+	6+
WX35121	59-600-111	10X Mag	£23.75	£22.50
WX35122	59-600-222	10X & 15X Mag	£41.04	£38.88
WX35123	59-600-333	10X, 15X & 20X Mag	£61.56	£58.32

Hand Magnifier

**Roebuck**NEW

- The magnifier has a ground glass lens 60mm diameter
- The focal length is 100mm

Price Each

Order Code	Product Code	Magnification	1+	6+
WX61151	030155	2.5	£3.71	£3.52

Hand held magnifier

**Roebuck**NEW

- A robust hand-held magnifier with 5x magnification
- Glass lens size 75mm diameter

Price Each

Order Code	Product Code	1+	6+
WX61152	1248895	£4.64	£4.41

Round Magnifiers

**DRAPER**

- Plastic lightweight magnifiers ideal for engineers, philatelists, etc
- Main lens magnification x 3 with inset x 6
- Display packed

Price Each

Order Code	Product Code	BrammerRef	Lens x Length	1+	6+
WX53580	78474	DRAPER-78474	50mm x 125mm	£4.71	£4.43
WX53581	78475	DRAPER-78475	65mm x 150mm	£5.51	£5.18
WX53582	78476	DRAPER-78476	70mm x 180mm	£7.23	£6.80

Head Bands

LED headband magnifier & 4 lenses



Roebuck NEW

Ideal for close-up precision work, leaving your hands free. This fully adjustable headband includes 4 interchangeable optical lenses and detachable triple LED spotlight with magnetic base. For professional, craft, hobby or DIY projects that demand close-up work. A fully adjustable tough plastic headband which includes 4 precision ground interchangeable lenses, covering all focal lengths from semi close-up to very close-up which are easily changed over by simple clip-in slots on the headband. Detachable triple LED spotlight with magnetic base for separate use and plastic infill for headband when LED used separately. Requires 3 x AAA 1.5v batteries (not included)

Price Each

Order Code	Product Code	1+	6+
WX61153	2003637	£50.57	£48.04

Illuminated head band magnifier



Roebuck NEW

This head band magnifier has the following features as standard. Multi-coated acrylic lenses offer a choice of 4 magnification powers via a combination of fixed, flip-up and monocle lenses: 1.5, 3.0, 9.0 and 10.5. It also has bright dual LED illumination, tilt and swivel LED adjustment, a visor that can be lifted and lowered as required, and the magnifier can be used when wearing glasses. The headband magnifier is most useful for assembly and inspection work and is also suitable for hobbies, crafts and general reading.

Price Each

Order Code	Product Code	1+	6+
WX61154	2017427	£11.97	£11.37

3D Sighter



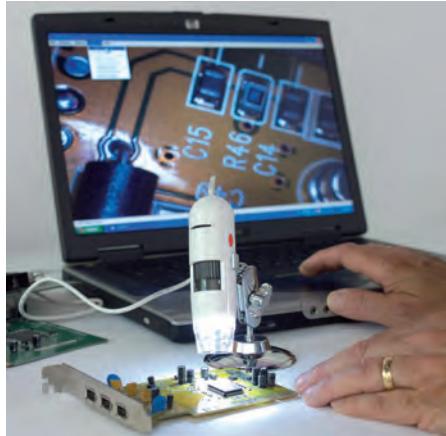
- Enlarges close work so that it is seen clearly in 3D
- Adjusts to any head size comfortably
- Has no moving parts to wear out or replace
- Magnification, 3D sighter

Price Each

Order Code	Product Code	Description	1+	6+
WX35117	52-660-707	1-3/4 X Mag	£21.76	£20.61
WX35118	52-660-727	2-1/4 X Mag	£21.76	£20.61
WX35119	52-660-737	2-3/4 X Mag	£27.17	£25.74

Microscopes

USB Digital Microscope



Long Reach Microscope



- LTL**
- For viewing surfaces of items which will not fit onto conventional plate
 - 2x Objective lens (giving x20 magnification)
 - 10x Eyepiece with adjustable centres & rubber eye cups
 - Top swivelling light source, 12v lamp, 220v supply
 - Positive rack and pinion focussing
 - Articulated 290mm long extension arm
 - Heavy duty base plate 120 x 200 x 65mm
 - 290mm Column height

Price Each

Order Code	Product Code	Description	1+	3+
WX38653	59-020-100	Microscope	£301.15	£285.30
WX38655	59-020-105	Lens x1	£37.05	£35.10
WX38654	59-020-102	Spare Bulb	£9.69	£9.18
WX38650	59-020-041	Eye Piece 15x	£21.47	£20.34
WX38651	59-020-042	Eye Piece 20x	£21.47	£20.34
WX38652	59-020-045	Eye Piece 10x	£42.75	£40.50

‡ Special delivery applies. Please call for details



For eye protection,
 see our
 Personal
 Protection
 Equipment
 section

Stereo Microscope



- Highly quality stereo microscope
- Used exclusively for surface inspection
- 2x and 4x objectives
- 10x Eyepiece
- 12V Incident illuminator with 220v on/off switch
- Eyepieces mounted in 45° inclined eyetube
- Interpupillary distance adjustable from 2" to 3" (50mm to 75mm)
- Objectives mounted in 180° revolving turret with positive click stop, parfocal and parcentred
- 2.5" Reversible white/black stage plate provided
- Pair of rubber eye cups provided

Price Each

Order Code	Product Code	Description	1+	3+
WX40011 ‡	59-020-040	Microscope	£323.00	£306.00
WX38648 ‡	59-020-039	Spare Bulb	£2.95	£2.79
WX38650 ‡	59-020-041	Eye Piece 15x	£21.47	£20.34
WX38651 ‡	59-020-042	Eye Piece 20x	£21.47	£20.34
WX38652 ‡	59-020-045	Eye Piece 10x	£42.75	£40.50

‡ Special delivery applies. Please call for details

Hardness Testers

Durometer Shore "A" Scale



Price Each

Order Code	Product Code	1+	3+
WX31794	59-500-000	£133.00	£126.00

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- Shore Durometers are suitable for checking the hardness of rubber, plastic and many other soft materials
- Fast easy to read, portable instrument
- Manufactured to DIN 53 505
- Complete with reference setting block and instructions
- Supplied in fitted case

Digital Shore scale "A" and "D" Durometer





- Testing rubber, plastic, leather and all other soft materials
- Fast and easy to read
- Large digital display, digits 6mm high
- Use by hand or mounted on a stand
- Supplied with a reference block
- Data output for SPC
- Zero setting - preset - value input options
- Electronic module protection to IP65, even with data output (see IP Ratings explanation within digital calipers section)
- Can be used in conjunction with Shore bench stand
- UKAS Certification
- Conforms to DIN 53 505, ASTM D2240 and ISO R/868
- Display range 0-100

Price Each

Order Code	Product Code	Description	1+	3+
WX38590 ‡	DSAS001	Durometer A	£481.50	POA
WX44020 ‡	DSDS001	Durometer D	£481.50	POA

‡ Special delivery applies. Please call for details

Roughness Testers

Portable Surface Roughness Tester




- A portable pocket sized surface roughness measuring instrument ideally suited to rapid on the spot surface roughness measurements (Ra and Rz roughness parameters)
- Back lit LCD
- Dynamic Test display: progress of cut-off length during testing
- Protection slide on pick-up
- Auto off after 90 seconds
- Both Ra and Rz parameters in one instrument
- Piezo electric pick-up stylus for external surfaces

Price Each

Order Code	Product Code	1+	3+
WX44021 ‡	MTR-110	Tester	£902.00

Range: Rz 0.10 - 50um / Ra 0.05 - 15.0um

‡ Special delivery applies. Please call for details

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**Ultrasonic Thickness Gauging
with the TT-100 from Bowers**

**Bowers' World Leading
XT Bore Gauging Range**



**Moore & Wright
Precision Hand Tools**



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